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## BANSPORTATION

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Vol. 13 : No 4

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Never the Twain Shall Meet Poi, Palms, Planes

Cooperation Is Necessary Why I

APRIL 1949

Stowing Air Cargo

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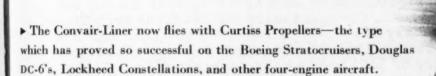
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PROPELLER DIVISION CURTISS TO WRIGHT CALDWELL, N. J.

## Cooperation is Necessary

You don't have to convince the dyed-in-the-wool air cargo man that in the near future, the revenues derived by the airlines from their cargo traffic will exceed those from passenger traffic. They know that the tradeways of the air will follow the tradeways of the sea and rail.

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But the International Air Transport Association has been slow to realize the full extent of this. It has taken certain positive steps to integrate international air cargo policy. Not the least of these has been recognition of the foreign freight forwarder. However, recognition as an IATA-approved cargo agent carries an unusual price in the form of a "fee" for the privilege of giving the member airlines business. How backward a step this is can be seen by the fact that such a practice is absolutely unknown in other forms of cargo transportation.

It was an IATA Traffic Committee, composed mostly of passenger traffic men, who passed upon the levy. The demand for payment (\$30 per agency, plus \$10 for each additional office) was an arbitary one, and was received by the forwarders only a few days before the specified deadline. Nor was this all: there was a request by IATA which would have each forwarder sign on the dotted line that he agrees to permit the association to levy any fee in the future it

desires, and that this fee would be paid.

There was an explosion of no mean proportions in the freight forwarding industry. Most forwarders either refused outright to pay, or did so under protest. At this point the Customs Brokers and Forwarders Association of America, Inc. stepped into the picture. It advised moderation to its 275 member firms throughout the United States, and sought to confer with officials in the New York and Montreal offices of IATA. But no one seemed to be anxious to discuss the issue which by then had become as hot as the proverbial potato. Some of the forwarders' disaffection must have trickled over the border into the IATA headquarters at Montreal, for eventually the deadline for payment of the fee was extended to February 16.

That the deadline had been extended was in itself a contradiction of the "facts" as the New York office of IATA had led the forwarders to believe. Previously the CBFAA had been informed that there was no local authority to alter

the regulations passed upon at the IATA meeting in Rio last October.

Finally the forwarders were given the choice of paying the fee or losing IATA recognition. Consequently nearly everyone did so under protest. To make matters worse—like rubbing salt into the wound—it became clearer with each passing day that the average airline cargo man disapproved of the IATA fee altogether. He views it as a stumbling block for international air cargo. But his own hands were tied.

The forwarder has made his position clear so that no airline representative can mistake it. It is not the amount of the fee to which he is opposed; it is the way it was handled, and the principle of having to pay for the privi-

lege of filling the cargo holds of airfreighters.

IATA has exposed its peculiar brand of thinking in lumping the foreign feight forwarder with the travel agent, even though the two are distinctly separate entities, particularly in the United States. Only one bare distinction has been made—in the payment of brokerage, where the forwarder receives 5% and the travel agent 7½%. But that is as far as it goes.

The CBFAA made another attempt to sit down with the IATA airlines a few weeks ago. Most of them did not show up for fear that the meeting might incriminate them in some way. However, as a result of that meeting, a cabled

protest was sent to the IATA conferees in Cairo.

IATA can do much to resolve the situation by meeting the forwarder halfway in the guarantee that future problems concerning them be discussed in democratic fashion. An open-minded policy will breed the necessary harmony.

## TRANSPORTATION

## The world's first and only air cargo magazine

Established October, 1942

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AIR TRANSPORTATION, published on the 15th of each month, is devoted (1) to the furtherance of air cargo as the newest and most significant form of freight transportation, (2) the promotion of domestic and international air commerce as an integral factor in progress, prosperity and peace; and (3) the establishment of a safe and sound national as well as international air transportation system. Subscription rate for United States and Possessions, \$5.00 for one year, \$8.00 for two years, and \$11.00 for three years; foreign countries, \$6.00 for one year, \$10.00 for two years, and \$14.00 for three years.

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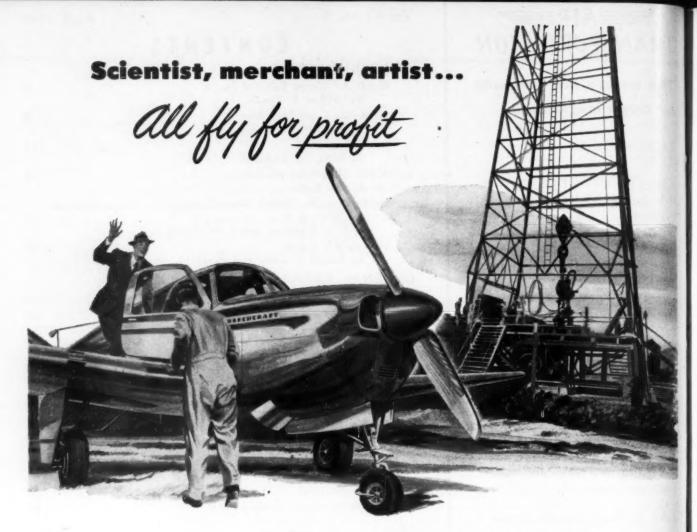
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#### COVER

Four international air carriers display some recent cargoes. The penguin on Pan Am's passenger ramp was flown from Montevideo to New York . . . those boxes being carried into the KLM plane contains lilies for Princess Elizabeth of England, shipped from Trinidad . . . that gentleman sitting beside the PAL ship is holding a tarsier, one of many to make the Philippines-Frisco crossing . . . and the Sabena stewardess plays with two fauns which made the Brussels-New York run with her.





Cecil Hagen, Houston consulting geologist, flew his 4-place Bonanza 20 hours his first week of ownership. Covered "3,000 miles, which would have taken 3 times as long by other means of travel." The whole U. S. is now his operating territory. He personally watches various operations without hiring more men as in the past.

Bonanza-owner H. C. Bowers, retail furniture dealer of Salt Lake City, can now make all those buying trips he should have been making... and didn't. Has more time at the store, too. Increases out-of-town sales by flying customers to the home store. Bonanza travel pays... in many ways!

Opera star Mona Paulee makes a 40,000-mile concert tour—on schedule—with the greatest of ease. "Only way to maintain that strenuous schedule is with our Bonanza," she says. Dean Holt, her husband-accompanist, does the flying. "Gives us time to hunt, fish and meet people."



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BEECHCRAFTS ARE THE AIR FLEET OF AMERICAN BUSINESS

PAGE 6-AIR TRANSPORTATION-Air Commerce

## Guest Air Cargo Editorial No. 6

By WILLIAM B. VONAH

Air Cargo Manager

**SABENA Belgian Airlines** 



William J. Vonah

THE OPPORTUNITIES WHICH REMAIN untapped by the air cargo industry today are of such stature that it would be difficult for the writer to review them in the space allotted. On the other hand, the obstacles, while being comparatively few, are of such complex nature that they cannot be treated lightly. Let us therefore consider some of the more important aspects of each.

At present, the greatest single obstacle to increased payloads is the requirement of individual licenses for commercial shipments of all commodities to Europe. The repercussions will affect particularly the shipments of certain well-known, nonessential commodities which have for some time now been an important factor in our payload.

It is expected that this new requirement will force exporters to work on a more narrow margin of profit and, thereby, to decrease somewhat the opportunity of transporting their material by air. We may therefore expect a period of marked decrease in the volume of international air cargo, this period to last until such time as exporters can adjust themselves to a timetable schedule of business. Eventually this should prove to be to the advantage of the carriers, for it will greatly reduce many of the difficulties encountered with the so-called "last minute shipper."

Those of us who are carriers can readily appreciate the effects of the present broad fluctuation of the international credit situation on our cargo payloads. They are always in direct proportion to each other.

What can we do about it? By encouraging the use of air transportation for cargo, we can hasten the arrival of a balance of trade that will lay the foundation of sound business in the future; and in addition, give us the chance to sound out the possibilities of carriage of many products which have not heretofore been considered practical for transportation by air. Fundamentally we will be doing nothing more than the task which is ours . . . that of promoting international air cargo. A voluminous amount of statistical evidence can be offered to support this.

The analysis of the potential air cargo in fresh food-stuffs shows evidence of furnishing important quantities of traffic to the skyways. We are only too well aware of critical shortage of food which exists throughout Europe, and yet, with the exception of gift parcels, there has been little or no traffic in foodstuffs to that area by air. In order to estimate the responsive extent of fresh foodstuffs to transportation by air, an opinion was gathered by the writer from a responsible group of retail and wholesale merchants. It was readily ascertained that those whose facilities extended into Europe had given previous consideration to this venture. Some were even in the advanced stages of preparing the ground work. Those who were not so readily prepared abroad, expressed willingness to participate in similar programs could they but secure a more economical rate for cargo transportation. This would help them absorb additional costs incurred by them in Europe in the handling and resale of their merchandise. Some of the latter may be reached by the expedient of establishing specific commodity rates; the others must stand by until such time as operating costs are reduced.

It may be well to cite, at this time, the man who is one of our most valuable allies—the foreign freight forwarder. It is he who has, in many cases, built up valuable associations with shippers, using other modes of transportation than ours. He is in a key position to educate these selfsame shippers to the advantages of the services we have to offer. Frequently he can accomplish this through the medium of friendly business correspondence or an impersonal interview. Those who subscribe to his services obviously respect his ability and judgment and, therefore, it may be assumed that the forwarder's clients lend an attentive ear to his suggestions and advice. We therefore have a cohort to explore with us into some of the uncharted sections of international air cargo.

The paradox is that some of our more pressing problems are in actuality some of our more valued assets. It is up to us to develop them by applying the solutions which we have found.



AUTOMOBILES no longer are considered among the odd items moving via air freight. Here is a new-type Davis roadster backing into the cargo hold of a Flying Tiger DC-4.

### Never the Twain Shall Meet

By ROBERT W. PRESCOTT, President, Flying Tiger Line

A straight-from-the-shoulder reply to C. R. Smith, on the proposition that freight and passengers cannot mix

HE position of the air freight industry today is like that of a poor man who has latched on to a little business. His frends never paid much attention to him before. Now they are ready to give him, literally, the shirts off their backs.

There never was such a thing as an air freight industry in aviation until the last year or so.

Up to then, the certificated lines were interested in two things—mail and passengers. The air shipper was just a freak of business.

In the early days, the certificated lines got mail-pay rates which were so high they were scandalous. Twenty years ago, small companies were getting rich flying the mail. That was too good a thing, so the Government broke it up.

Then the certificated lines got busy developing passenger traffic. They found a lot of it—so good that now their volume of air passenger traffic is a genuine challenge to first-class surface carriers.



ROBERT W. PRESCOTT

But, like the neighbors who had no time for the poor man, the certificated lines had no time for air freight. It was one of those in-theclouds ideas which would soon disappear the sad way of all pink dreamers.

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However, a few of us had a chance in the war to see the tremendous job that an airplane could do flying military freight. We came home and started to do the same job commercially.

In two years, air freight traffic in this country grew from 250,000 tonmiles a month, to 15,000,00. It is still going up strongly—and at a time when the certificated lines are beginning to see fall-offs in passenger traffic, indicating they are presently at least past the passenger peak.

So, the poor man has struck something good. And the certificated lines who, like anybody else, don't need to look twice to see a going business are ready to do all sorts of things for the air freight shipper. For 20 years, the shipper has been lying around with his business right under their noses, but they had been so busy with passengers they had no time for him. Now they can't get in his door

PAGE 8-AIR TRANSPORTATION-Air Commerce

fast enough. In doing so, they hope to use the Government to crowd everybody else out.

Now that a few men who had seen the possibilities of air freight in the war had come home and demonstrated that the same possibilities existed commercially — now that they had proved that a traffic potential, probably even greater than that of the passenger business, had been lying around all these years waiting for someone to bring it to life and develop it—what do these certificated lines propose to do about it?

Why, they propose to take it over. These upstart air freight lines, what do they know about airline operation? say the passenger men. But much, much worse than that, these upstarts are seriously cutting into something that is "our" business.

Whose business? Who developed it? Who had the time, energy and courage to sweat out starting something that none of us knew anything about but in which some of us could see great possibilities? Certainly not the certificated passenger lines! But, suddenly, they begin calling it "our" business. There is no place for the air freight lines in the "our".

The certificated lines now come before the Civil Aeronautics Board to toss us out the window. They say the air freight lines, which flew more than 60 million ton-miles of the 100 million ton-miles of freight flown in 1947—three-fifths of ail air freight

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business—should be put out of business by the CAB, and all their efforts in building us this new field of aviation should be handed lock, stock and barrel, to the now-suddenly-awakened certificated lines.

They remind you of the fellow who walks in after the battle has been fought and takes the bows while the battle-weary soldier tries to get on his feet to find out if he is still actually alive.

And if there is anyone who thinks I am over-dramatizing the situation, all I can say is that the air freight lines are so close to being out of business in a couple of months if this issue isn't quickly settled, that it scares you to wake up mornings.

I don't know of a more greedy proposal than that of the certificated lines. They want no competition except among their own select circle. They have no place in the industry for other companies which have gone out, developed a business, and ask only a chance to compete for it. Greedy over their passenger traffic, which skyrocketed them to plush millions during the war, they now see the great potential of air freight traffic, which they had so long overlooked.

### Would-be Monopoly?

Seeking to misdirect the life-anddeath power of the CAB over civil aviation, they ask that the air freight lines be denied permanent certificates of operation. They would end air freight competition, except among themselves, and nicely sew up the field for such development as they saw fit to give it, and in their own way and time.

Judging from the complaints of

Judging from the complaints of the air passenger about schedules and service and the serious public feeling that developed against the passenger lines during the war, it would seem that they have enough to do straightening out their passenger business.

The figures quoted above, showing that the majority of air freight moves over the air freight carriers, would seem sufficient proof of the shippers' preference, especially when it is considered that three air freight carriers are doing this business against 26 certificated airlines.

Typical of the distortion and subverting of motives that has been injected into the picture by the passenger lines are the statements of C. R. Smith, chairman of the board of American Airlines, before the Civil Aeronautics Board in the Air Freight Rate Case, and in a letter to the Congressional Aviation Policy Board. Among others, he made two points:

 That the certificated lines are nearing the end of their ability to sustain additional market dilution.

 That air freight lines are creating a duplicating super-structure of freight service.

He didn't come right out and say he wanted the CAB to throw us out of business. But he protested, in a painful way, of how the certificated lines were being hurt.

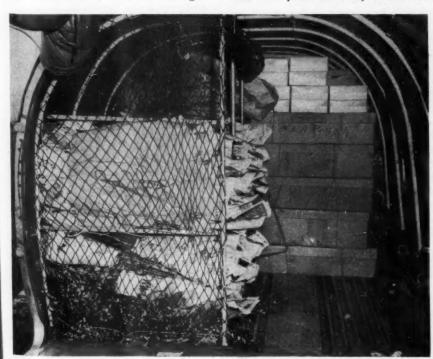
He inferred, by his plaintive statements, that things were awful with the passenger lines and they needed lots of help. That if they didn't have to put up with this upstart competition, they would save the shipper and the public much money, to say nothing of their own skins.

Of course, he said nothing of how comfortable and cozy everything would be if the certificated lines could just wrap up this juicy plum for themselves and digest it at their own convenience.

The is strange medicine from Mr. Smith.

When the fight was going on over competition vs. monopoly among the certificated lines to determine who would fly internationally, Mr. Smith was right on the side of the strongest proponents of competition. Of course, being out, his company wanted to get into the rich international flying field. They won and they are in it, to their great advantage.

Now the shoe is on the other foot.



Flower shipments are securely stacked, box to box, while loose paper-wrapped bundles are carefully sectioned into netted bins.

business, which seems only natural to us. But now Mr. Smith, once so ardent an advocate of competition, wants it to be competition alone among the certificated line monopolists.

In short, when you are out, you want in, and when you are in, you want to keep all the others out. That has been tried many times in American business and sometimes it succeeds. But Mr. Smith sounds like the old-time capitalism, which was voted out some 40 years ago when Teddy Roosevelt began battling the trusts.

All Mr. Smith needs to do is quit hollering about somebody grabbing his business and go out and get some as business usually does when it doesn't have a Government board to run to.

And while we are talking about the dire predicament of the certificated lines as a result of this monster of air freight competition, which did about \$16,000,000 worth of business last year against how many hundred millions for the certificated lines, lets reflect a minute on why the passenger lines are so near the financial brink as Mr. Smith infers.

Did they get that way because they had only part of the air freight business? That's hardly possible, because until the air freight lines came along, there was no air freight business. So, they haven't lost anything they once had. And then, during the war and before, the better-operated lines made money with, literally, a pound of air freight.

It should be plain how the certificated lines have gotten behind the financial eight-ball.

They took a look at their wartime business aind went into the new airplane market and blew their bankroll for a good many years to come.

They started flying new passenger airplanes. Since last Fall, their million dollar DC-6s had been grounded.\* American admitted that this was costing them \$350,000 a week. We could turn over the whole Flying Tiger operation to them and it wouldn't reduce that loss enough to be worth even a yawn.

They started a rate war in air freight competition that has cost them

no one knows how much and neither will they. They don't know themselves, because their own freight costs are so entwined with all their other complex operations of mail, passenger, express and countless subsidiary activities, that not even a mathematical wizard could clearly segregate it. That rate war, generated by the certificated lines after they saw what an interesting business the air freight carriers had dug up, almost put us out of business but we have managed to hold on thus far. So now these certificated lines take the surest way to apply the coup-de-grace—if it works—denial of our certificate applications by the CAB.

They engaged in route-building, lobbying, plush offces, personnel expansion, fancy industrial and public relations and no one knows how many other activities, on a million-dollar scale that ran their costs out of sight.

How much of this was financed by their rich 45-cent-a-ton-mile mail pay is something no one knows, but it paid for a lot more than the air freight operators could afford with their 13½-cent-a-ton-mile common revenue.

### Mail Pay

That mail pay received by the certificated lines is something you ought to think about every time the passenger carriers scream for help. It is more than three times what the air freight carriers get for their business. It is the cheapest kind of air cargo to handle that will ever be flown, but it brings about the highest rate of any type of cargo.

And right now, these lines are not only plotting to get the air freight carriers out of business so they can take all air freight over, but they are also yelling for higher mail pay.

The picture is so absurd we ought not even to have to argue it.

Even if they had all the air freight traffic available, on the path they are traveling they still couldn't make both ends meet. Their only real problem is real efficiency and sound management. Instead, they are using this plea for exclusive air freight rights to grab enough plus business, as represented by air freight, to enable them to continue the gesture of the lavish hand.

Do you think the air freight carriers in asking only for the right to be in business—no rich mail pay, no passengers — nothing but the chance to carry air freight—do you think they are asking for too much?

Now, let's look at some of the other things the certificated lines talk about.

They say shippers would be amazed if parallel railroads should be proposed. They conveniently overlook the fact that the same major terminal-to-terminal competition ex-

ists among the railroads that we have today in air freight competition. And a lot of shippers are thankful for it.

What about the competing railroads between Chicago-New York, Chicago-Seattle, Los Angeles-Chicago, to mention only a few?

Shippers are frank to say that one of the best forms of insurance they have aganst the vanity that monoply breeds is competition of service. You are a lot more attentive to the customer, as we all know, if another fellow is standing at the door, waiting for his business the minute you fumble it. That hasn't been so true in the war years, but now that day is dawning again.

And while we are on the subject, I don't recall seeing strings of freight cars running across the country attached to Pullmans. The railroads have been in the business a long time. They seem to find that freight is freight and passengers are passengers and never the twain should meet.

Then we hear the charge that the air freight carriers only want to skim the cream off the air freight business by serving only the large cities. If what we are skimming is cream, it is a highly diluted variety, and of a strange color. It comes out red on our ledgers.

Let's ask some questions about the point. How many small cities did the passenger lines serve 20 years ago? How much freight traffic is there in small cities that can be served profit

We all know that 20 years ago, which is about where the air freight business is today in relation to air passenger traffic, the airlines served almost no small cities. Small cities will be served by air freight carriers when we have learned how to serve the major traffic of the big cities both efficiently and profitably. As the certificated lines ought to know from their bitter wartime service complaints, this is a complex business in which you progress by putting one foot ahead of the other rather than expanding in all directions at once.

We prefer to grow that way rather than come limping to the Government for subsidies to stay in business and pay for our immature enthusiasm, as the certificated lines seem to be doing now in their cry for more mail pay.

Again, we know that for most small-city shippers, air freight is only economical and useful as an (Continued on Page 41)

<sup>\*</sup>The DC-6s started flying again in March.



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## et's look at the case of airline X

WITH its fleet of 26 prewar twin-engine airliners, airline X\* was losing money each month. To meet this problem, airline X replaced its 26 obsolete planes with 12 Martin 2-0-2's. What was the result? The figures below speak for themselves.

	USING MARTIN 2-0-2	STANDARD PREWAR PLANE
No. of Airplanes in Fleet	12	26
Average Trip Length-Miles	400	400
Cruising Speed (60% NRP at 10,000') MPH	253	191
Block Speed-MPH (10 MPH Headwind)	219	168
Airplane Utilization—Hrs./Yr.	3650	3650
Passenger Seats/Airplane	36	21
Available Seat Miles/Yr.	345,000,000	335,000,000
Seat Miles at 60% Load Factor	207,000,000	201,000,000
Direct Flying Cost/Airp. Hr.	\$98.22	\$58.08
Indirect Expense—125% Direct	\$122.78	\$72.60
Total Cost/Airp. Hr.	\$221.00	\$130.68
Operating Expenses/Yr./Fleet	\$9,680,000	\$12,400,000
(Note: Revenue figures do not include mail, express and f	reight.)	
Revenue/Yr. at 85% L. F. and 5.5 cents/Pass. Mi.	\$16,130,000	\$15,660,000
Gross Profit	\$6,450,000	\$3,260,000
Revenue/Yr. at 80% L. F. and 5.5 cents/Pass. Mi.	\$15,180,000	\$14,740,000
Gross Profit	\$5,500,000	\$2,340,000
Revenue/Yr. at 70% L. F. and 5.5 cents/Pass. Mi.	\$13,280,000	\$12,900,000
Gross Profit	\$3,600,000	\$500,000
Revenue/Yr. at 65% L. F. and 5.5 cents/Pass. Mi.	\$12,330,000	\$11,980,000
Gross Profit	\$2,650,000	(-) \$420,000
Revenue/Yr. at 60% L. F. and 5.5 cents/Pass. Mi.	\$11,390,000	\$11,060,000
Gross Profit	\$1,710,000	(-) \$1,340,000

\*THOUGH above figures for hypothetical airline X are based on ATA formula, figures based on actual operating costs of the 2-0-2 are even lower. The Glenn L. Martin Company, Baltimore 3, Maryland.



## Poi, Palms, Planes

A first-hand report on the operations of Trans Air Hawaii, Ltd., an all-cargo airline serving the islands and flying every type of freight, from mud to milk.

> By EDGAR H. BAUMAN Field Correspondent AIR TRANSPORTATION

ROSSWORD puzzle fans who'll never be stumped when they need a three-letter word meaning "a Hawaiian dish made of the root of taro which is baked, pounded, moistened, and fermented" are the pilots of Trans Air Hawaii, Ltd.'s orange-and-red trimmed DC-3s.

Almost every day one of them rolls his plane to a stop on the island of Molokai. A battered truck backs toward the ship ,and after a few preliminaries the tailgate is directed to the cargo doorway. A plump Hawaiian looks up at the pilot and asks, "Hey, you got some poi today?" The pilot says, "You betcha," and tosses a few sacks of the squishy stuff on the truck. The sacks land with a heavy thud.

Poi! It's just one of the many items of air cargo carried by TAH. (In defense of Mainland delicacies, I've tasted library paste that I liked a lot better.) The alliterative title of this story only lists a few of the unique items carried on this equally unique airline. It is not uncommon to see the boys unload those already indicated, in common company with fresh beef, vegetables, chickens, live dairy cows and their calves, goats, ice-cream mix, milk, bread, full-sized sailboats, washing machines,

empty egg crates, auto parts, fresh Mainland fruits which arrive by boat, household furnishings of uprooted islanders—and even mud. There was one cargo consisting of three tons of special mud shipped to Hilo on the "Big Island" for well-drilling purposes.

Trans Air Hawaii was organized commerce

TRANS AIR HAWAII employees loading a baby Austin (top) into the hold of a cargoplane. w fi fi h in

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EIGHT THOUSAND POUNDS of mud (center)—yes, mud!—flown to complete a rush drilling job.

UNLOADING FRESH FISH transported (bottom) from Tern Island, 550 air miles from Honolulu.



PAGE 12—AIR TRANSPORTATION—Air Commerce

in August, 1946 by a small group of pilot veterans who had decided that the airline business was for them. Even in Honolulu this idea wasn't exactly a novelty. But they were distinguished by the fact that they were the only outfit at John Rodgers Airport to decide to specialize in cargo. They set their sites on a certificated scheduled operation between the beautiful islands of Hawaii, Maui; Lanai, Molokai, Cahu, and Kaui. Some of the boys were of old

Kamaaina (long-time resident) families. Others saw service there during World War II and liked the place well enough to stay and invest

their talent and savings.

They've had some stiff competition from one of the grand-daddy airlines, which had enjoyed a virtual prewar monopoly on the inter-island aerial traffic, but which had enough



passengers to keep them busy. Lately, "Grandpa" has given "the boys" some worrisome months. Right now rates have leveled off, with each carrying about a million pounds a month! Rates for the longest runs average about three cents a pound. Less on shorter hauls!

My continued reference to the operators as "the boys" shouldn't be taken as improper familiarity, although they are very easy to know and like. "The boys" is correct, because nobody in the outfit is over 32

years of age.

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TAH bought four surplus DC-3s with the proceeds of \$80,000 stock floated among themselves and friends. They set up an operating base in an abandoned Army building opposite the international terminal at Honolulu, rolled up their sleeves, and went to work.

There was the usual business of selecting a firm name and electing officers. Richard H. King, an exnaval officer from Washington, D. C., is TAH's president, and Paul Nones, who flew with the RCAF and the United States Marines holds down the job of operations manager, Harry Warren, chief pilot, did his bit (Concluded on Page 58)

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# A FISH STORY FROM Australia

In which is told the story of how a new flying boat service broke down the barriers of an inaccessible region of Tasmania and earned profits thereby.

BY LEN BARKER

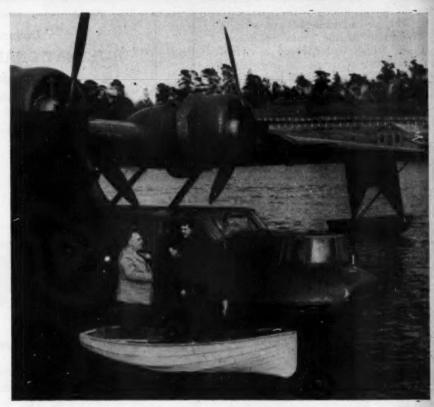
By air freighting fish from a hither-to inaccessible region of Australia's island State of Tasmania, a group of airmen who flew in defense of Australia during the Pacific war are ending the isolation of a rich undeveloped and practically unexplored area. All ex-members of famous Catalina flying boat squadrons, they are using the same type of aircraft in their great peacetime venture.

Tasmania is the heart-shaped island of 26,000 square miles which lies 140 miles south of the Australian mainland across the Bass Strait. In its southwest corner lies the region that these modern pioneers hope to develop, 3,000 square miles of country endowed with an abundance of timber, fish and basic minerals.

Of all the Southwest's natural wealth the most easily accessible to a flying boat are the fishing grounds along her 50 miles of coast and in her two fine natural harbors, Port Davey and Bathurst, both of which provide an ideal anchorage for flying boats.

These fishing grounds have been known for many years to be the most bountiful in Australia. They remained unfished, however, because of the gales and heavy swells that sweep in from the Great Australian Bight and Southern Ocean.

Fishermen who in the past attempted to work Tasmania's Southwest Coast made record catches, but bad weather drove them to shelter in Port Davey or Bathurst harbor and isolated them there for as long as two months. The overland approaches to the two harbors are blocked by 50 miles of mountains whose



LORD NATHAN, Britain's Minister for Civil Aviation (standing in rowboat), chatting with Pilot Warren S. Hickcox, former United States Navy flyer, who has settled in the Land Down Under.

jagged peaks rise to a height of 4,000 feet and slope into densely timbered valleys as impenetrable as the worst tropical jungles.

Recent attempts by Tasmania's Government to link the Southwest with civilization by driving a pack horse trail through the mountains were abandoned after two years' work, yet the *Catalina* flight from Hobart, capital of the State, to Port Davey takes only 25 minutes.

First step in the plan to develop the Southwest Coast into a great fishing base was taken late last August when two modern refrigerated trawlers rounded the stormy southwest cap and entered Port Davey. The first day's fishing inside the harbor yielded tons of the highest class fish to be found in

Tasmania—flounder, trumpeter, salmon, cod, and crayfish (lobsters).

A radio message from the trawlers to the Catalina which was waiting in Hobart brought her within an hour to Port Davey. Next day fish from the Southwest Coast were being retailed on the mainland, 450 miles away.

Operated by General Fisheries Pty. Ltd. of Sydney, who are working in conjunction with the Catalina, the two trawlers are the forerunners of many more to come. They are equipped with all types of fishing gear—from lobster pots to deep sea shark lines—so that when the weather outside Port Davey is favorable they can go out after school shark and other deep water fish.

(Continued on Page 54)

PAGE 14—AIR TRANSPORTATION—Air Commerce

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### AIR--X--PRESS

VISITORS who thrilled to the beautiful horticultural exhibits at the In-ternational Flower Show at New York's Grand Central Palace in March will be interested to know that many of the displays were sped to the show by Air Express. Keeping native-grown flowers and plants looking their Sunday best posed no problem for the distant exhibitors with Air Express transportation shrinking time and distance between exhibitor and showplace. For example, the National Federation of Garden Clubs, in conjunction with the New York Herald Tribune, airexpressed a dozen exhibits from various sections of the South and West. Shipments were forwarded on a pre-ar-ranged schedule, to be delivered to the Flower Show on successive days. In many instruces, local newspapers sent photographers to the airport to record the shipping of the home-grown ex-



A TWO - MONTH - OLD Chihuahua puppy, undoubtedly one of the young-est of recent Air Express passengers excepting baby chicks, of coursea flight from Flint, Michigan to Toledo, Ohio the other day. Weighing all of one-and-three-quarter pounds, includ-ing the knitted sweater he was snuging the knitted sweater he was snug-gled in, the pup was promptly christen-ed "Tiny Tim" by airport personnel. "Tiny Dog — Please Keep in Warm Place" read the note attached to the shipping container.



A FAMOUS Philadelphia music library uses Air Express to speed its priceless collection of manuscripts to symphony conductors when last-minute symphony conductors when last-inimite calls come in for rare orchestrations. More than 600 music manuscripts, many of them extremely rare, are made available to musicians all over the world, with Air Express winging the compositions to destination in time for rehearsals, reports the Saturday Evening Post.



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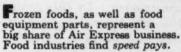
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AFTER completing a deal to buy 200 fur coats, a Cleveland, Ohio department store executive was pondering how to get them to Cleveland from New York in time for an advertised sale to be held 48 hours later. Just then a representative of the Air Express Division of R.E.A. came by on a customary call As soon as he heard the story, the Air Expressman quickly convinced the fur buyer that Air Express service could deliver the coats in time for the advertised sale. So pleased was the department store with the arrangement that it headlined its second newspaper ad; "These Fur Coats Rushed Air Express to Meet Demand!" It was another quick and profitable transaction, both for the fur buyer and for Air Express.

## Disc jockey, grocer, farmer— all find speed pays



Transcriptions and radio scripts move regularly by Air Express. In the radio business, speed pays.





Even baby chicks—in countless numbers—travel this fastest way. In any kind of business, speed pays.

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and cities at no extra cost.
Moves on all flights of all Scheduled Airlines.

· Air-rail between 22,000 off-airline offices,



AIR EXPRESS, A SERVICE OF RAILWAY EXPRESS AGENCY AND THE

### SCHEDULED AIRLINES OF THE U.S.

APRIL 1948-PAGE 15

## SPOTLIGHTING THE UNITED STATES - CANADA AIR CARGO POTENTIAL PART 1

By P. L. BREAKIRON and R. W. HOECKER

ERRITORIALLY, Canada is the giant of the Western Hemisphere nations, its area of 3,500,000 square miles being slightly greater than that of Brazil and a sixth larger than the United States. It is more sparsely populated than most of the South American countries, containing only about 12 million people, 90 per cent of whom live within 200 miles of the United States.

Of all countries or trading areas of the Western Hemisphere, the Dominion of Canada is the nearest to and the most accessible from the United States, both physiographically and commercially. The accessibility of Canada from the standpoint of air commerce is enhanced by the absence of any formidable natural barriers, by the presence of fairly adequate airport facilities for the handling of large transport planes Hard on the heels of a similar article exploring the air cargo potentials between the United States and Alaska is this one devoted to the United States and its northern neighbor. Four Canadian industrial air freight areas are given a thorough going-over. In this installment two such areas are treated—the St. Lawrence and Maritime. The authors, two former transportation economists for the United States Department of Agriculture, produced this excellent study on special assignment by the Fairchild Engine and Airplane Corporation.

at all the larger Canadian cities, and by the prevailing favorable trade relations with the United States.

There are, on the other hand, conditions that are due principally to certain geographical, climatic, agricu'tural, and industrial characteristics of both countries that play an important part in determining the kind of candidates for air transport that are produced, exported, and consumed by each country and in determining the seasonal and directional distribution of the air freight potential. An understanding of these important characteristics is neces-

sary to an understanding of the ways in which they influence the kind and volume of trade between the two countries.

Agriculture, which gives employment to more people than any other single Canadian industry, is confined in Canada to the southern part, for the vast arctic and sub-arctic regions of the Dominion are unsuitable for agriculture. In value of total output, farming ranks second only to manufacturing for the country as a whole and it actually predominates in the western provinces.

The climate of southern Canada is

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Cargo loaded into a Trans-Canada Air Lines cargoplane. TCA has announced a new tariff.

PAGE 16—AIR TRANSPORTATION—Air Commerce



Montreal, important stop on air cargo routes from the United States, ranks as one of the top industrial cities in Canada.

rather similar for the most part to that of the adjacent areas of the northern part of the United States. Cool-climate crops predominate, but a few warmclimate vegetable crops are grown to some extent, notably in southwestern Ontario and in local areas in British Columbia. Unlike the United States, however, Canada has no winter-garden areas such as are found in Florida, Texas, and California. Therefore, it must depend upon the United States, Mexico, and Cuba for its supply of fresh winter vegetables.

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The cross-country distribution of Canadian agriculture closely resembles that of the northern part of the United States. In the eastern provinces of Ontario, Quebec, New Brunswick, and Nova Scotia dairying and general farming predominate. The great plains area of the midwestern Provinces of Manitoba, Saskatchewan, and Alberta is devoted almost entirely to the production of grain and livestock, while certain areas in western British Columbia specialize



Air cargo to and from United States and Canadian cities are on the upgrade.

in growing high-quality deciduous fruits.

With the exception of mining and lumbering, Canada's industry, like its agriculture, is confined by climate and other factors to the southern portions of the Dominion. This is particularly true of the manufacturing industries which are even more highly concentrated in certain areas than is agriculture. A general likeness in the peographical and climatic characteristics and, to some extent, parallel economic development have resulted in a high degree of similarity between the industrial and agricultural economies of the two countries.

It follows, from what has been said regarding the regional distribution of Canadian agriculture and industry, that differing areas of Canada import, export, and consume different quantities and different products that are promising candidates for air transport. The air freight potential to and from Canada, therefore, can best be analyzed on a regional or area basis. An "air freight area," as each of these districts may conveniently be called, can be defined as a section of the country that produces substantial quantities of air candidates and consumes substantial quantities of air candidates that are produced outside the area.

Lack of sufficiently detailed production and consumption data for different commodities in various parts of Canada makes it impossible to delineate in detail each individual "air freight area" of the Dominion. In general, however, these areas center around the larger and more populous cities of the Dominion and include the adjacent sections of one or more provinces having similar agricultural and industrial characteristics.

actoriotics.

#### St. Lawrence Area

The St. Lawrence Industrial Air Freight Area includes generally that portion of Canada referred to as the St. Lawrence Lowlands. This area extends from Quebec City westward to Lake Huron and the Detroit River, a distance of about 650 miles. It begins as a narrow strip on both sides of the St. Lawrence at Quebec City, but mroadens, particularly on the south side of the river, until it is about 120 miles wide in the vicinity of Montreal.

About 60 per cent of the population of Canada lives in the two Provinces of Ontario and Quebec; the great majority are found in this air freight area that makes up the southern portions of the two Provinces. Four of Canada's principal cities — Montreal, Toronto, Ottawa, and Quebec—are located in

this area. Approximately 80 per cent of all Canada's manufacturing industry is located in the Provinces of Ontario and Quebec, with about 60 per cent of the total concentrated in the St. Lawrence Air Freight Area. Economically, this area, which is the industrial heart of Canada, is an extension of the northeastern industrial quadrant of the United States.

This proximity of the St. Lawrence Air Freight Area to the northeastern industrial section of the United States is both an advantage and a disadvantage insofar as the development of air freight operations to and from this area is concerned. The advantage lies in the fact that its strategic location makes possible the development of air freight operations to and from the area in conjunction with those operations to and from the adjacent points in the northeastern industrial area of the United States. The principal disadvan-

tage of the St. Lawrence Area's nearness to the main United States industrial area is that most of the so-called industrial air candidates imported from or exported to the United move a relatively short distance.

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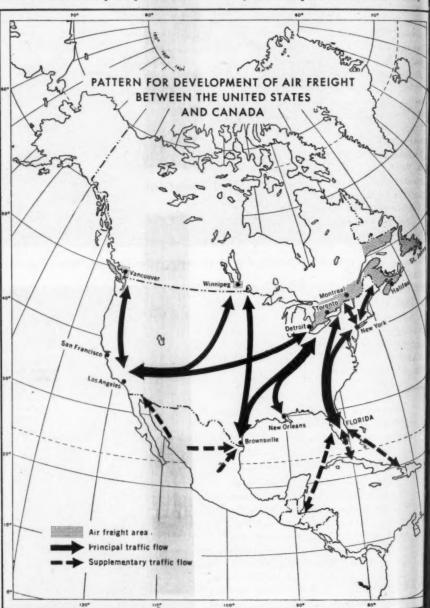
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Fresh fruits and vegetables are, beyond doubt, the most important class of agricultural air candidates imported into the St. Lawrence Air Freight Area from the United States. The bulk of these shipments originates in the winter-garden areas of Florida, Texas, and California and a few adjacent States, and moves by rail direct to the larger cities in the area, principally Montreal, Toronto, Ottawa, and Quebec (Table 5). An appreciable volume of bananas, pineapples, and tomatoes is also imported into this area via the United States from Mexico, Central America, and some Caribbean Islands.

There are varying degrees of seasonality in the imports of each commodity



from the above-mentioned areas of origin. Because of this seasonality factor. no single fruit or vegetable imported into the St. Lawrence Air Freight Area from the United States can offer a sizable year-around potential. To maximize this tonnage, it will be necessary for the carriers who may handle this traffic to carry products that the harvested at different times of the year so as to make shipments available over a long period. Shipments from California to this area are much less seasonal than shipments from Texas and Florida. The disadvantage of the Texas and Florida areas in this respect, however, is partially offset by the supplementing effect of Canadian imports of tropical fruits and winter vegetables via these areas from Mexico, Central America, and the Caribbean area.

### Flower Imports

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Fresh cut flowers also may profitably be imported into the St. Lawrence Air Freight Area from the winter-garden areas of the United States by air. Data on the volume of these items now moving by rail express are extremely meager and incomplete. Flowers, and more especially cut flowers, have figured increasingly in air freight operations in the United States. As the Canadian cities in this area at an even greater distance from the winter growing areas in Florida and California than most cities in northern United States and at a greater disadvantage so far as the production of flowers in local greenhouses is concerned because of the higher cost of fuel for these houses, air transportation of flowers from California and Florida to these Canadian cities should be even more practical and profitable than to some cities in northern United

The St. Lawrence Air Freight Area imports a large volume of industrial products from the United States, a comparatively small part of which might be considered as potential air freight. But this potential is not so

Table 5 - Total carlot unloads of selected fruits and vegetables at four Canadian cities, 1946

Commodity	Principal source of aupply	jan,	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Apricots	Calif., Wash.						11	4	2	1				17
Cantaloups	Calif., Ariz.					2	114	149	35			1		301
Cherries	Wash., Ore.,							-	-				-	. 0
	Calif.					1	4	8						13
Grapes	Calif.	19		3			1	28	143	116	185	115	87	696
Honeyballs	Calif.				100	50	1					-	1	1
Hone ydews	Ariz., Calif.						10	45	18	3	1			77
Lines	Fla., Calif.				-	2	2	1	3					8
Mixed deciduous	Calif.	1					1	1	3			1	1	8
Mixed fruits	Calif.	1	3	2		1	1					1		7
Nectarines	Calif.		1					2	2		1			4
Peaches	Calif. Ga.										1			
	N. C.						54	347	55					456
Pineapples	Ouba	15	43	81	128	101	55	4	2	3		17	3	452
Plums	Calif.						62	140	2					204
Pluma and											0			130
peaches	Wash., Ore.,						1							
	Calif.							1						1
Pomgramates	Calif.										5			5
Strawberries	La., Ark.,													
	Tenn.				32	11								43
Tangerines	Fla.	11	18	12	1						1	4	15	61
Asperagus	Calif., S. C.				22	1	1		1		1		1	28
Beans	Fla.	15	19	7	11	31	23				15	11	25	157
Broccoli	Calif., Aris.	1.1	2				1		-				1	4
Brussels aprouts	Calif., N. Y.	.2					1						5	7
Cauliflower	Calif., Ariz.	39	20	60	57	33	6	1			1	2	44	261
Celery	Fla., Calif.	184	154	164	173	158	50	1					1	885
Corn	Tex.	1				1	1	4				1		6
Cucumbers	Fla.				11	45	37				1	1		94
Eggplant	Fla.						1						1	1
Escarole, endive	Fla.		1				1				1			1
Lettuce	Calif., Arix.	197	129	187	242	224	5	1	1	26	141	139		1,456
Mixed vegetables	Fla., Tex.	53	75	76	51	20	4				1	8	22	310
Paraley	Tex.	1	1					1					1	4
Peas	Calif., Fla.		5		16	11	3		6	1			3	54
Peppers	Fla.			1	1		1	2	1	1	1	1		5
Radishes	Tex.	2		10	10	2	1	1		1	1	3		49
Spinach	Tex., Va.	37	37	51	60	25	1		1	1	1	14	38	262
Tomatoes	Tex., Fla.,								1	1	1	1		
	Calif.	70	1		201	1	1	187			75			1,845
Yams	La., Va.	2	4	6	7	4	-	-	10	6	6	8	16	69
Tota	1	650	623	802	1,022	1,084	845	924	283	155	429	442	588	7,847

\*Percentage of unloads taken by each city: Toronto 45 percent, Montreal 40 percent, Ottawa 9 percent, and Quebec 6 percent.

Source: Dominion Department of Agriculture, Canada, Marketing Service.

large or promising as that offered by fruits and vegetables. This in a large measure is because of the relatively short distances involved in the movement of most of these commodities from their points of origin in the adjacent industrial northeastern section of the United States. Generally, air transportation in these instances would offer relatively little advantage over move-

ment by rail express. Notwithstanding these circumstances, a small volume of such items as women's apparel, drugs, and pharmaceuticals would probably move by air freight from points such as New York and Philadelphia to the larger cities in the St. Lawrence Air Freight Area at rates approximating those of rail express. Some difficulty would probably be experienced in at-



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## WHY BRITAIN IS TURNING

## 70 AIRFREIGHTERS

ANY airline companies have shown a loss on their 1947 operations. They find themselves in the red not because of a steep decline in traffic, some of the biggest losses have been incurred by companies whose carrying capacity has been almost overtaxed. Their deficits spring from many different causes, but the picture presented suggests that passengers alone cannot, at this stage in the development of air transport, provide sufficient revenue to make economic operation over some routes possible.

Hence there is a tendency for operators in most countries to offer increasing facilities for the transport of goods. They are demanding that certain planes shall be so equipped that accommodation shall be widely and quickly variable between passengers and goods to meet sudden or unexpected demands by one or the other. They are also showing an increasing interest in the freighter type of aircraft so that, as industry makes more and more use of the air services, they can meet its demands.

There are many who are of the opinion that air transportation, to be assured of profitable operation, must learn from surface transport and strike a suitable balance of passenger and freight operation. The signs are that by these processes the present difficulties of the airlines may be overcome.

The British aircraft industry is in a strong position to provide operators with cargo-carrying aircraft. It offers. in fact, more than a dozen types in this field, ranging from long-range four-engined aircraft to small medium-range twins; landplanes, flying-boats, a helicopter, and an amphibian, with payloads from 13 tons to 13 hundredweight. (Weights mentioned here are presumably British.)

Among the basic requirements of a freighter, as distinct from a passenger plane are maximum stowage space, a strong weight-carrying floor, and wide doors. A successful pattern of mediumheavy cargoplane is the Bristol 170 Freighter. Capable of flying a five-ton load for a useful range, this twin-engined plane has demonstrated its utility

A quick survey of Britain's achievements in cargo aircraft

during the last two years, transporting a variety of loads in many climates, working from small, unprepared areas as often as not.

Three freighters in a smaller category but designed from the start for the efficient carriage of goods are the Miles Aerovan, Merchantman, and M-68. The first has been hauling one-ton loads around Europe and other parts for many months; the four-engined all-metal Merchantman has a two-ton payload; the M-68, with its detachable and mobile freight-container holding 1,600 pounds, put up an impressive demonstration at a recent exhibition.

To the list can be added two dual-purpose types, both deriving from passenger-carrying aircraft though they are completely modified and equipped for freighting. These are the four-engined Handley Page Hermes Civil Freighter (payload 16,000 pounds), and the twinengined Vickers Viking Freighter which can transport 9,450 pounds. As a passenger carrier, the Viking is in world-wide service.

A new transport, the biggest of its kind in Great Britain and designed from the beginning as a freighter, is the four-engined General Aircraft *Universal*, with production of the prototype well advanced. Like the Bristol 170 and the

Miles trio, it has the high-wing, low floor, fixed undercarriage layout. The *Universal* is designed for a maximum payload of 13.4 tons.

The helicopter freight transporter, the Cierva W-11 Air Horse, is something quite new in rotating-wing aircraft. Its three rotors will lift the W-11 with three tons of goods aboard and transfer it all to its destination at 120 miles per hour.

Each of the eight types listed is a true freighter. Two are already in extensive use; the prototypes of four others have done a substantial amount of flying and the aircraft are on the market; two others are being built in prototype form.

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A ninth name can be added—the Ambassador freighter—for which designs have been prepared. An official of the Airspeed company states, however, that production of the passenger version has compelled postponement of the freighter project.

Several passenger-carrying aircraft are offered by their makers in cargo-carrier form if required. Short is prepared to supply any of its flying boats suitably modified. They have delivered to Danish Airlines some Sandringhams with special large doors and capable of carrying 10,500 pounds. The Solent (Concluded on Page 57)



The Cierva Autogiro Company's W-11 Air Horse, called "the world's fastest and most powerful" helicopter. This British eggbeater is designed to carry two dozen passengers or three tons of cargo in addition to a three-man crew. Its cruising speed is 116 miles per hour for 232 miles; maximum speed, 154 miles per hour. First test flight will take place this Spring.

PAGE 20—AIR TRANSPORTATION—Air Commerce



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"In our opinion, one of their (the airlines') biggest faults is the inability to give a shipper a prompt confirmation of delivery when advice is received from a consignee that apparently a shipment has been lost or has been delayed enroute.

"We have had a number of instances in the past where we have endeavored to get an airline to give us a correct and prompt record of the whereabouts of a shipment after telegraphic advice was received from the consignee of nondelivery. Invariably, several days later the consignee reports receipt of the goods before the airline has any information for us.

"The same situation applies where goods have been lost, and we might take this occasion to cite a specific instance in which we are now involved. On April 3, 1947, we forwarded a package of semi-precious stones to a bank in B. On December 2, 1947, the New York office received a letter that the parcel was never delivered to its B. branch and they asked us to institute a tracer. We wrote the airline in December, giving them full airwaybill reference. On December 23 we received a routine printed acknowledgement of our inquiry. We wrote a follow-up letter on January 27, 1948. On February 5 we received a letter from the airline stating that the shipment arrived in B. on April 15, 1947, but they are still trying to confirm delivery to the consignee. Up to this writing (February 17) no such confirmation has been received."

(The above points up a definite need for coordination of services on the part of the airline. We understand that IATA is taking several steps in the right direction. But the shipper cannot afford to wait too long.)

"My pet peeve is at the consignor who addresses his shipments incorrectly, and then comes running back to us with complaints when they do not reach destination. He's the guy who abbreviates Iowa (Ia.) to make it look like Louisiana (La.). "Haste makes waste" is a good motto for the one who does the addressing to remember."

(And what about the chap whose abbreviated California (Cal.) looks as though he means Colorado (Col.)? A hand-written "a" can look very much like an "o". Actually, shippers should abbreviate California as "Calif." and Colorado as "Colo." As for lova, we suggest that the name is short enough to write in its entirety.)

EVERYBODY HAS PROBLEMS. . . the air shipper, the air carrier-from the cargo handler to the top executive. But very often these problems turn, into gripes . . . sometimes for a good reason, sometimes for a bad. We feel that such problems and/or gripes are dangerous when kept under shrouds; that the sooner these are aired, the sooner will the air cargo industry reach its real peak. The purpose of this feature is to promote mutual understanding between air shipper and air carrier through the medium of an open forum. Corrective action, therefore, becomes so much simpler. Air shippers and air carriers alike are invited to contribute to this page. Discussion is frank and free. The editors' only provision is that the shipper or carrier discussed in each problem remains absolutely anonymous. want the problem aired, and not the "offender."

"It has been brought to my attention that certain airlines—mainly non-scheduled, but also one or two of the scheduled lines—after dealing with our freight forwarding concern, contacted our clients direct, and attempted to wean them away from us by urging to ship without the forwarder's services. This is downright unethical."

(Such rumors have come to our ears. But we have heard of no formal protest by the forwarders. We'd like to hear more on this.)

"Several months ago, I set down on paper some air shipping problems that were crying for solution. One was the contention of shippers that in many instances they pay air freight rates for slow service and are entitled to a rebate. The second was the apparent need for an increase in air freight facilities so as to guarantee schedules, barring unusual conditions such as bad weather. The most urgent need, I wrote, was for some sort of coordinated pick-up service feeding all airlings, so as to eliminate costly and time-wasting individual pick-ups—especially when only one or two packages are involved. At that time the certificated airlines were reported to have agreed on a joint pick-up service, and this was actually put into operation. However, it hasn't really solved the pick-up problem particularly in congested areas where any sort of pick-up by truck is necessarily difficult and slow, as well as costly to the trucker.

"I am calling this to your attention because an entirely new approach has been made to this problem in New York, and judging by results seems to be the answer long sought. Of all the industries handicapped by slow pick-up, the garment industry has perhaps suffered most, chiefly because it is concentrated in the most highly congested area of New York City. Trucks have difficulty getting into the area, and once in they really get into trouble trying to load. Obviously, any sort of pick-up by truck here is a delayed action, and the garment shippers need fast service.

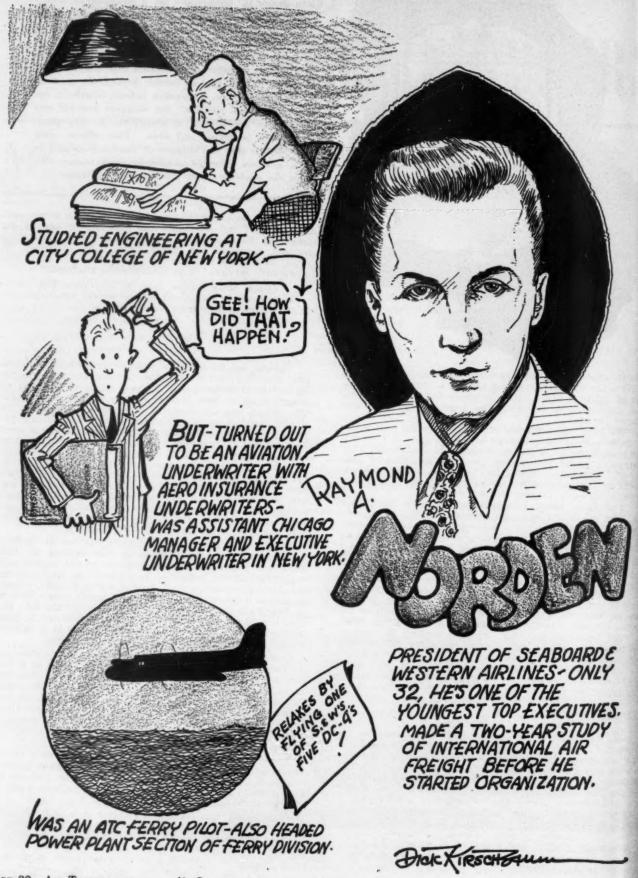
"Last month a new idea was applied to this problem. An air freight terminal was established right in the heart of the garment district, and shippers were told to bring their air packages directly to the terminal. The terminal arranged for hauling these packages to the outlying fields. Routed packages were delivered directly to the airlines specified. Unrouted packages were given expert routing at the terminal. And this service was set up at no extra cost to the shipper—a very important consideration.

"That the service was needed—and constituted a direct answer to the problem—is shown by the fact that in its first month of operation the terminal handled an average of 8,000 pounds of air freight, the bulk of it ready-to-wear. A peak of 13,000 popunds was reached in a single night.

"I am citing this merely to indicate it is only through direct, realistic action in solving problems that the air freight business will realize the great potential so often prophesied for it."

-S. A. Kreis

## AIR CARGO PROFILES . . .



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PAGE 22-AIR TRANSPORTATION-Air Commerce

### UNITED STATES AIR FREIGHT AND IRREGULAR AIR CARRIERS

KEY TO SYMBOLS: A—Ambulance; AO—Area of Operations; C—Cargo; I—Instruction; M—Mapping; P—Passengers; PH—Photography; S—Sales; SU—Surveying; X—No Information. Aircraft shown in parentheses indicate they are on order or in the process of modification.

A & H FLYING SERVICE, Fletcher, N. C.

ABERDEEN FLYING SERVICE, Aberdom, Ida.

ABILSO AVIATION CO., Box 1658, Abilene, Tex.

ABILSO AVIATION, JOHN, Harrisburg State Airport, New Cumberland, Pa.; John Abiuso, pres.; Stinson Station Wagon, Luscombe, 4

Aeroneas (Stinson); AO—East U. B.; C-P. G.

ACTIVING SERVICE, P. O. Box 1076, Galveston, Tex.

ACADIA AVIATION, INC., P. O. Box 57, Ellsworth, Me.

ADA FLYING SERVICE, Box 878, Ada, Okla.; Clarence Rawle, mgr.;

Cub Cruster, 6 Cub Trainers; AO—X; C-P.

ADAMS COUNTY FLYING SERVICE, Box 94, Natches, Miss.

JOE ADAMSON, Commercial Airport, Re No. 2, Box 60, Okmulgee,

Okla.

ADIRONDACK AERO SERVICE, Warren County Airport, Glens Palla,

N. Y.

AERO AVTIVITIES, INC., Detroit City Airport, Detroit.

AERO ENTERPRISES, INC., Suite 625, Mack Bidg., Denver, Colo.

AERO ENTERPRISES, INC., Meacham Field, Ft. Worth, Tex.; R. L.

Adams, pres.; PT.-17, 11 Cessnas; AO—Tex. & adjoining states; C-I.

AERO MARINE, INC., Municipal Airport, Council Bluffs, Iowa; Flord

E. Hughes, Ir., pres.; Stinson 150, Luscombe 8E; AO—U. S.; P.

AERO MARINE, INC., Municipal Airport, Council Bluffs, Iowa; Flord

E. Hughes, Ir., pres.; Stinson 150, Luscombe 8E; AO—U. S.; P.

AERO MARINE, TRANSPORTATION SERVICES, INC., 517 Hiberais

Bidg., New Orleans.

AERONAUTICAL SALES & SERVICES, INC., P. O. Box 476,

Bishop Airport, Film 2, Mich.

AERO SERVICES, Re No. 2, Mercedes, Tex.

AERO TRAINING AND TRANSPORT, INC., Hangar No. 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT, INC., Hangar No. 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT, INC., Hangar No. 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT, INC., Hangar No. 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT (No., Hangar No., 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT (No., Hangar No., 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT (No., Hangar No., 2, Lunken

Airport, Cincinnait.

AERO TRAINING AND TRANSPORT (No., Municipal Airport, Mason City, Ison

AIR ACTIVITIES,

AIR SALES AND SERVICE, INC., Wetr Cook Municipal Airport, Indianapolie 44, Ind.

AIR SERVICE, Edward 19, Munic. Airport, Adanta, Ga.; A. P. Dodd, pres, Howard 2 Cessan T 50s; AO—U. 2; C.P.

AIR SERVICE, INC., Box 419, Charleston, S. C.

AIR SERVICE, INC., Dellance Field, Newcoastle, Delaware, AIR TERMINAL SERVICE, INC., 6000 Mission Ed., Science Field, San Antonio, Tez.; M. A. Bateman, pres; Fairchild 24, PT-26; 6 Fiber Cub J-3s; AO—San Antonio ares; P.

AIR TRANSPORT SERVICE, 1320 St. Clerk Ed., Town of Mount Rosal, Juckes, Canada.

AIRBORNE COURIER, INC., 2112 Cliff Ave., Richmond 22, Va. W. C. Whitaker, pres; Howard; AO-U. S.; C.P.

AIRCRAFT SALES CO., INC., Box 191, Prescott, Ariz.

AIRCRAFT SERVICE CO., Bradley Field, P. O. Box 239, Boise, Ida.; John D. Bradley, pres.; Travelaire 6000, Fairchild 45, 2 Naviona, J. Luccombes; AO—Ida., Utak, New, Baar Ova, West Mont.; C.P.

AIRCRAFT SERVICE CO., Bradley Field, P. O. Box 239, Boise, Ida.; John D. Bradley, pres.; Travelaire 6000, Fairchild 45, 2 Naviona, J. Luccombes; AO—Ida., Utak, New, Baar Ova, West Mont.; C.P.

AIRCRAFT SERVICE CO., Airport, Rehoboth Beach, Dela.; Ercoupe, Twin Cessan, 2 Stinsons, 3 Cube; AO—U. S.; C.P.

AIRCRAFT SERVICE, INC., Alieport Ave., Sents Roea, Calif., AIRCRAFT SERVICE, INC., Box 192, Salisbury, Md.; Stanley H. Rayner, pres; Bellanca, Ercoupe; AO—U. S.; C.P.

AIRCRAFT SERVICE, INC., Sox 192, Salisbury, Md.; Stanley H. Rayner, pres; Bellanca, Recope; AO—U. S.; C.P.

AIRLAPANCH AIR SERVICE, INC., Box 193, Abertandria, La.

AIRLAND AIRLAY AIR SERVICE, INC., Box 193, Abertandria, La.

AIRLAND AIRLAY AIR SERVICE, Allengort St., Alexandria, La.

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Because of the unusually heavy demand from numerous sources for this exclusive list of United States Air Freight and Irregular Air Carriers, AIR TRANSPORTATION is following it up with a brand new edition.

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AMPHIBIAN AIR TRANSPORT, INC., Munic. Airport, Long Beach,
Calif.; E. F. Brown, pres.; D18S, 4 S-42s, 5 G-218s; AO-Calif.; C.F.
ANADARKO FLYING SERVICE, Anadarko, Okla.; C. G. Frye, mgr.
ANDERSON CHARTER & FLYING SERVICE, INC., Box 42, Lapel, Ind.

ANDERSON FLYING SERVICE, Rocksprings, Tex.

ANDREW FLYING SERVICE, LTD., Box 3295, Honolulu.

ANDREWS-MURPHEY AIR PARK, Andrews, N. C.

ANGELO AERO SERVICE, Mathis Field, San Angelo, Tex.; A. C.

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ANNAPOLIS FLYING SERVICE, INC., Box 222, Annapolis, Md.

ANTHONY & SONS, INC., E., 555 Pleasant St., New Bedford, Mass.

APPALACHIAN FLYING SERVICE, INC., Box 676, Johnson City,
Texn. Tenn.
ARCTIC-PACIFIC, INC., 719 2nd Ave. Bldg., Seattle.
ARCTIC-PACIFIC, INC., 719 2nd Ave. Bldg., Seattle.
ARETZ FLYING SERVICE, Aretz Airport, Lafayette, Ind.; L. I.
Aretz, prea.; PT-19, Stinson 150, Taylorcraft A-8, Luccombe A-8,
Piper 1-5, 2 Piper 1-3e; AO—X; P-1-8
ARGONAUT AIRWAYS CORP., Box 397, Buena Vista Sfa., Miami.
ARIZONA AIRCRAFT COMPANY, P. O. Box 1868, Tucson,
Ariz ARIZONA AIRCRAFT COMPANY, P. O. Box 1868, Tueson, Ariz.

ARIZONA AIRWAYS, INC., Adama Hotel, Phoenix, Ariz.

ARKANSAS AVIATION SERVICE, INC., Grider Field, Pine Bluft, Ark.; B. D. DeWesse, Jr., pres.; Cessma UC-78, 3 Stinson Station Wagons; AO-Ark., Ls., Mo., Miss., Tex., Tenh.; C-P.

ARKANSAS POLYTECHNIC COLLEGE, Russellville, Ark., ARKANSAS POLYTECHNIC COLLEGE, Russellville, Ark., ARKANSAS VALLEY AVIATION CO., Lamar Airport, Lamar, Colo. ARNOLD AIR SERVICE, INC., Box 15, Anchorage, Alaska.

ARROW AVIATION, INC., Lincoln, Nebr.

ARROWHEAD AIRWAYS, Box 623, Hibbing, Minn.; L. M. Wittig, prop.; Cessma UC-78, Seabee, Waco UPF-7; AO-U. S., Canada; C-P.

ARROWHOOD FLYING SERVICE, Box 337, Mount Holly, N. C.

ASPEGREN AIR SERVICE, P.O. Box 24, Honeo Path. S. C.

ASPEGREN AIR SERVICE, Munic. Airport, Salina, Kan.; C. I.

Aspegren, prop.: C-78, Swift, Super Gruiser, 2 Tayloreraft; AO
Rocky Mia to Chicago and south to Gulf; P.

ASSOCIATED AVIATION, INC., Hangar No. 5, Lunken Airport, Cincinnati. ASSOCIATED AVIATION, INC., Hangar No. 5, Lunken Airport, Cincinnati.
ASTOR, VINCENT, 152 W. 42nd St., N. Y.
ASTORIA FLIGHT SERVICE, INC., Box 204, Astoria, Ore.
ATLANTIC AIR, INC., Box 647, Gadaden, Ala.
ATLANTIC AIR LINES, 1528 Walnut St., Philadelphia.
ATLANTIC AVIATION SERVICE, Du Pont Airport, Box 2538, Wilmington 199, Del.
ATLANTIC CITY AERIAL SERVICE, Bader Field, Atlantic City, N. J.: Harry A. Nordheim, pres.; Cub, Taylorcraft, 3 Gull Wighington 199, Del.
ATLANTIC, GULF & MIDLAND CORP., Box 55, Little Ferry, N. J.
ATTICA FLYING SERVICE, INC., Attica, Ind.; Orville L. Brown, pres.; Stinson Station Wagon; AO—300-mile radius; C-P.
ATWOOD AIRCRAFT, Atwood Airport, Northampton Mass., Roger L. Atwood, Prop.
AUBURN AVIATION CO, INC., Auburn, N. Y.
AUBURN SCHOOL, OF AVIATION, Auburn-Opelika Airport, Auburn, Ala.; W. G. Rhodes, mgr.; Casna, PA-12, Bonanza (Bonanza); AO—8E States; C-P.
AUGUSTA SCHOOL OF AVIATION, INC., P. O. Box 1010, Augusta, Ga; Willis M. Boshears; 10 Cubs & Twin Cessnas; AO—Ga., S. C.; P.
AUSTIN AERO SERVICES, INC., Ret. 2, Box 1084, St. Edwards Airport, Austin, Tex.; Charles A. Quist, Jr., pres.; Luscombe, PA-11, Aeronca, 2 Stinson 150s; AO—U. S.; P.
AVALON AIR SERVICE, Box 829, Rocky Mount, N. C.; Raleigh E. Lee, mgr. AVALON AIR SERVICE, Box 829, Rocky Mount, N. C.; Raleigh E. Lee, mgr...

AVIATION ACTIVITIES, New Orleans Airport, New Orleans. AVIATION ACTIVITIES CO., Sherman Field, Concorn, Calif. AVIATION CENTER, INC., Luniker Airport, Cincinnati.

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AVIATION SCHOOLS & SERVICE, INC., Lake Susquehanna Airport, Bairstown, N. J.; Frank S. Pittenger, pres.; Aeronca, Stinson 150; AO—not restricted; P.

AVIATION SERVICE CO., INC., Box 32, Hartford 1, Conn., AVIATION SERVICE, INC., Rock County Airport, Janesville, Wis.; L. E. Weiss; Bonanza, Stinson Reliant, Cesans UC-78, Cesana 140; AO—Wis, III., Ind.; C-P.

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AVIATION SERVICES OF TEXAS, INC., Alamo Municipal Airport, San Antonio, Texas.

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B & B FLYING SERVICE, Box 1549, Drew Field, Tampa, Fig. B&B FLYING SERVICE, INC., Box 474, Roswell, N. M. B & F FLYING SERVICE, Box 798, New Brauniols, Tex. B. & L. AIRLINES, 163 San Souci St., Charleston, S. C. B. & M. AERO SERVICE, INC., West Side Airport, Box 82, Marion, Ind.

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BAHNMAN AVIATION CO., Commerce, Tex., BAILEY FLYING SERVICE, Box 1072, El Dorade, Kan.

BAILEYS FLYING SERVICE, Ree 1, Madison, N. C.

BAKER FLYING SERVICE, P.O. Box 716, Baker, Ga.
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BAKER'S AIR PARK Burlington, W. Va. D. S. Baker, mgr.
BALDWIN TRANSPORTATION CORP., 534 W. 38th St. N. Y.
BALL-RALSTON FLYING SERVICE, Ru 4. Hillsbore, Ore.
RALLANTINE FLYING SERVICE, DICK, Redmond, Ore.; Stinson, Astronca, UC-78; AO—local; C-P.
BALLEW CHARTER SERVICE, 2415 N. 29th St., Tacoma, Wash.; D. W. Ballew, pres. Taylorcraft (2 C-461); AO—U. S.; C-P.
BARBERG FLYING SERVICE, Box 564, Bamberg, S. C.
BARBER FLYING SERVICE, Box 558, Lexington, Va.
BARKER & DEAN FLYING SERVICE, Box 707, Conway, Wash.
BARNER & DEAN FLYING SERVICE, Box 707, Conway, Wash.
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BARNER & DEAN FLYING SERVICE, Box 709, Santa Paula, Calif.
BATTLE CREEK FLYING SERVICE, Box 56, Battle Creek, Mich.
BAY FLYING SERVICE, Box 141, North Bend, Ore.
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Mateo, Calif.; Leigh Athern, pres.; Ceasna 140, Waco YKS6, Bell
Model 47 helicopter (Ceasna 170): AO—U. S.; C-P.
BEACON FLYING SERVICE, Box 216, Clarence, N. Y.; John
J. Dreacher, gres.; 15 light & medium aircraft, not specified; AO—X; P-I.
BEADLESTON AIR SERVICE, Box 121, Decatur, III.
BECKLEY-MT. HOPP AIRPORT, Box 1370, Beckley, W. Va.
BEELER FLYING SERVICE, Box 121, Decatur, III.
BECKLEY-MT. HOPP AIRPORT, Box 1370, Beckley, W. Va.
BEELINGHAM AIR SERVICE, Box 216, Clarence, N. Y.; John
J. Dreacher, Brit. Col.; C-P.
BENNA AND JORI FLYING SERVICE, Box 157, Decatur, III.
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BENNA AND JORI FLYING SERVICE, Box 16, Benton, Ark.
G. I. Miller, pres.; Scabee, Stinson SR4. J Cubs (2 Navions): AO—Wash, Oreal Barrington, Mass.; Walter Kolade, pres.; PA-12, 2
Cesson 140s, 4 Cap. Great Barrington are; C-P.
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BLAIR FLYING SERVICE, Munic. Airport, Blair, Neb.

BLATZ AIRLINES, INC., Adm. Bldg., Long Beach Municipal Airport, Long Beach 8, Calif.

BLUE RIDGE AVIATION, INC., Box 388, Elkin, N. C.

BLUFFS AVIATION SALES CO., Box 841, Scottsbluff, Neb.

BLYTHEVILLE FLYING SERVICE, Blytheville, Ark.; W. H. Yar-brough & A. L. Richardson, Jr., propq.; Cessna 146, PA-12; AO—U. S.; P.

BOEKENHOFF AVIATION SERVICE, 2038 Spring St., Quincy, III. U. S.; P.
BOEKENHOFF AVIATION SERVICE, 2038 Spring St., Quincy, Ill
BOGGS & McBURNEY AIRCRAFT, 11628 Santa Monica Blvd,
Lob Angeles 25, Cam.
BOHON AVIATION SCHOOL, Woodrum Field, Roanoke, Va.
BOHOMER FLYING SERVICE, INC., Blue Grass Field, Lexington, Ky.
BONACCI FLYING SERVICE, N. Omaha Airport, 72nd & McKinley
St., Omaha, Neb.
BOOKWALITER, C. VERNON, Rockford Bay, Ida.
BOONE COUNTY AIRLINES, INC., Box No. 6, Erlanger, Ky.
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BORDER AVIATION SERVICE, Municipal Airport, El Paso, Tex.
William J. B. Frazus, pres.; Swifts, Ercoupes, Stinsons; AO—within 640
miles of El Paso; P.
BOST'S FLYING SERVICE, Newton-Conover Airport, Rox St.
Newton, N. C.
BOTTINEAU AVIATION, Bottineau, N. D.; Ernest Sorenson, pres.
Champion, Chief, Ercoupe (Aeronca); AO—N. D. area; C-P.
BOULDER FLYING SERVICE, Box 915, West Memphis, Ark.
BOWLER'S AIR SERVICE, Box 1878, West Memphis, Ark.
BOWMAN FLYING SERVICE, INC., Dillant-Hopkins Airport, Keens,
N. H.
BOYD AERO SERVICE, P. O. Box 631, Santa Fe, N. M.; 2 singlecngine planes, not apecified; AO—U. B; P.
BOYLES FLYING SERVICE, Box 1031, Merced, Calif.
BOYNTON FLYING SERVICE, Rt. 2, Box 155, Houston, Texas
BRADER, EDWIN S., Easton Airport, Easton, Pa.
BRADFORD AIR SERVICE, Box 1878, Little Rock, Arkansas,
Robert Bradford, Prop.
RADSHAW FLYING SERVICE, Bradshaw, Neb.
BRADY FLYING SERVICE, Box 1878, Little Rock, Arkansas,
Robert Bradford, Prop.
BRAMER FLYING SERVICE, Box 271, Greenville, S. C.
BRAMER FLYING SERVICE, Box 1671, Greenville, S. C.
BRANNON'S AERO SERVICE, Box 171, Greenville, S. C.
BRANNON'S AERO SERVICE, Box 171, Greenville, S. C. Iowa.

BRANNON'S AERO SERVICE, Box 871, Greenville, S. C.
BRANSON CHARTER SERVICE, BEN, 3314 Wylie Drive, Dallas.
BRANSON CHARTER SERVICE, ENC., Branstetter Airport, Rts.

J. Box 1142B, Sacramento, Calif.
BRAYTON FLYING SERVICE, INC., Lambert Field, St. Louis.
BRECKENRIDGE FLYING SERVICE, O. Box 190 Breckenridge, Texas, V. D. Howe, Prop.
BREEDLOVE AERIAL SERVICE, CLENT, Box 1435, Lubbock, Tex.
BRIDGEPORT FLYING SERVICE, INC., Munic. Airport, Stratford, Conc.

BRIDGES AIRCRAFT, INC., Box 1162, Shelby, N. C., BRIDGES AIRPORT, 213 W. Gold St., Kings Mountain, N. C.; G. A. Bridges, pres.; Cruiser, 4 trainers; AO—local; P. PRINCKERHOFF FLYING SERVICE, College Park, Md.; George C. Brinckerhoff, Dir. of Oper.; DC-8, Cessna T-60, Waco UPF7, 2 Beechcraft D-17Se, 3 Fairchild M-62As, 18 I3 Cubs; AO-U. 8.; C-P.
BRISTOW FLYING & REPAIR, P.O. Box 1015, Bristow, Okla. BROOKS AIR TRANSPORTATION SERVICE, 108 Sargeant St., Hartford, Conn.; John R. P. Brocks, pres.; Bellanca, Waco, Twin Cessna; AO-U. 8.; C-P.
BROPHY FLYING SERVICE, Audubon Airport, Williamsville, N. Y.
BROWN AIR SERVICE, Box 848, Plainview, Tex.
BROWN AUTCHERSON AIR SERVICE, Box 959, Plainview, Tex.
BROWN & HUTCHERSON AIR SERVICE, Box 959, Plainview, Tex.
BROWN-SERVICE AIR AMBULANCE, 709 1st Nat'l Bldg., Birmingham, Ala. ham Ala.

BROWN-WILLIAMS FLYING SCHOOL, INC., Bowman Field,
Louisville, Ky.; P.I.

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    boro, Va.
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Aeronca 11ACs; AO—Beverly area; I.
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ELLIOTT FLYING SERVICE, Cram Field, Davenport, Ia.

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Aeronca 7ACs (Stinson 165); AO—Unrestricted; C-P-I.
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JANSSEN SKYTEL & FLYING SERVICE, McPherson, Kan.; William H. Janssen, prop.; Ercoupe, Station Wagon, 2 Cubs. 3 BC-12Ds

(Station Wagon); AO—Central States; C-P.

JARED AIR SERVICE, Box 475, Gainesville, Ga.

JASPER COUNTY AIRPORT, Hensselner, Ind.

JEFFERS, QUENTIN B., Box 293, Scotia, Calif.

JENNINGS BROS. AIR SERVICE, Box 306, No. Grafton, Mass.

JERSEY AIRWAYS, Box 270, Belmar, N. J.; E. I. Brown, pres.;

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C-P.

JEWETT, MARTIN L., Ushers Rd., Jonesville, N. Y.

OHANSON FLIGHT SERVICE, Rte 3, Box 169, Astoria, Ore.;

Gerald B. Johanson, prop.; Navion, PT-19, Swift, 2 Aeroncas, 2

Luscombes; AO—Ore., Wash.; C-P.

JOHNSON AERIAL SERVICES, LTD., Box 1281, Winter Haven, Fla.

JOHNSON FLYING SERVICE, Box 201, Greenwood, S. C.; Luther

C. Johnson, prop.; Bonanza, Super Cruiser, Ercoupe; AO—X; C-P.

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JOHNSON FLYING SERVICE, Rox 201, Greenwood, S. C.; Luther

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JOHNSON FLYING SERVICE, Rox 201, Greenwood, S. C.; Luther

C. Johnson, Stanson 108, PA-12, Curtis Sedan 15D, 2 DC-3s, 3 Ford

Tri-motors, 3 Travelaire 68s, 6 Cubs; AO—U. S.; C-P.

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JOHNS FLYING SERVICE, INC., Box 781, Jonesboro, Afk.;

W. H. Arnold, pres.; Stinson 150, Cessna 120, Cessna 140, Cubs; AO

—Craighead Co., Poinsett, Green, Ark., & & EM. Mo.; P.

JUNIOR COLLEGE FLYING SERVICE, Box 72, McCook, Neb.

KAHLE, KEITH AVIATION, INC., P. O. Box 599, Oklahoma, City, Okla.

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KAMPESKA AIR SERVICE, INC., Box 863, Watertown, S. D. KANSAS AIR ACTIVITIES, INC., Box 254, Russell, Kan.

PAGE 30-AIR TRANSPORTATION-Air Commerce

KANSAS CITY FLYING SERVICE & AIR COLLEGE, INC., 710538 Richards Rd., Kansas City, Mo.
KEISTER FLYING SERVICE, Kellorg, Ida.
KENNEDY-RILEY FLYING SERVICE, Rte 3, Wilroads Gardens
Airport, Dodge City, Kan.
KENS CUB FLYERS, Olean Airport, Olean, N. Y.
KENTUCKY AIR TRANSPORT, INC., Bowman Field, Louisville, Ky.
KERRVILLE FLYING SERVICE, Kerrville Munic. Airport, Box
108, Kerrville, Tex.; Carl D. Meek, pres.; Cruiser, Taylorsraft (Station
Wagon); AO—unlimited; P.
KESTERSON, INC., Box 1145, Knoxville, Tenn.
KEYSER AIR SERVICE, INC., Keyser, W. Va.; C. Arnold Ludwick,
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KIDD AIRCRAFT, Box 906, Corpus Christi, Tex.
KIDD FLYING SERVICE, INC., Box 230, Kilgore, Tex.
KINGFISHER AIRPORT. Box 18, Kingfisher, Okla.
KINGFISHER AIRPORT. Box 18, Kingfisher, Okla.
KINGFISHER AIRPORT. Box 185, Kingfisher, Okla.
KINGS AERO SERVICE, Box 1435, Hurley, N. M.
KING'S GATEWAY CHARTER SERVICE, King's Gateway Hotel,
Land O' Lakes, Wis.
KING'S SCHOOL OF AVIATION, Munic. Airport, Columbus, Ga.;
G. Wood King, prop.; P.I.
KINSER FLYING SERVICE, Box H, Ozona, Tex.
KINGWA FLYING SERVICE, Kowa, Kan.; Robert Schooley, pres.;
Cruiser, Cub trainer, Taylorcraft; AO—U. S.; C-P.
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KNOTT, E. J., Jin, Finchley, Va.
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KNOGFOS, MELVIN C., 1216 2nd Ave., Seattle, Wash.
KT FLYING SERVICE, LTD., Box

Depew, N. Y.

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LAKE CHARLES AVIATION SERVICE, Box 490, Lake Charles, La
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2 Interstates, 2 PT-19a, 4 Aeroncas; AO—X; P-I.

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MIDWEST FLYING SCHOOL, Midwest Airport, 4500 Tarrant Rd., Fart Worth, Tex.

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C. Gene Seibert, pres.; Cessna 140, Stinson 150; AO—560 miles from base; C-P-L.
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MILAN FLYING SERVICE, Munic. Airport, Milan, Tenn.
MILBANK FLYING SERVICE, Box 494, Milbank, S. D.
MILESTONE, MARSHALL L., Platte Airport, Platteville, Wis.
MILLER FLYING SERVICE, Munic. Airport, Ridgeland, S. C.
MILLER, JAMES M., 511 Lexington St., Plainview, Tex.



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MT. UNION AVIATION CORP., Mount Union, Par

MT. VERNON FLYING SERVICE, INC., Mt. Vernon Airport, Mt.

Vernon, Ill.

MOWERS FLYING SERVICE, Munic. Airport, Wahoo, Neb.

MURFEE AIR CHARTER SERVICE, 210 Post St., San Francisco 8, Calif.
        cisco 8, Calif.
MURFREESBORO FLYING SERVICE, Box 369, Murfreesboro, Tenn.
MURRAY-MacROBBIE COMPANY, Del Mar Airport, Del Mar.
    MURRAT-MECROSOR
Calif.

MUSKOGEE AIR SERVICE, Box 195, Muskogee, Okia.; M. U.
Mingus, pres.; Cloudster, 2 Cessna 1408 (Cessna 170); AO—U. S.; C-P.
MUSTANG AVIATION, INC., Box 548 SMU, Dallas 9, Tex.
MUTUAL AVIATION, INC., Munic. Airport, Buffalo, N. Y.; AO—
N. Y.-Newsrk, Buffalo; C.

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MYERS FLYING SERVICE, INC., Box 83, Ada, Okla.; Escal Myers,
pres.; Swift, 2 Stinsons; AO—SW U. 8.; C-P.
        NAN BAR FACILITIES, Nan Bar Airport, Flat Rock, Mich.
NASH FLYING SERVICE, Fox Field, Chapin, Ill., John Nash,
  NASH FLYING SERVICE, Fox Field, Chapin, Ill., John Nash, Prop.

NASHUA AVIATION & SUPPLY CO., INC., Boire Field, Nashua, N. H.; Arthur A. Goldsmith, pres.; Stinson 150; AO—domestic & foreign; C-P.

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NATIONWIDE AIR TRANSPORT SERVICE, Box 1226. Miami Spring, Fla.; R. Paul Weesner, pres.; Lockheed 12A, C-54. 5 C-47s; AO—U. S., Caribbean; C-P.

NATS AIR TRANSPORTATION SERVICE, Hangar 27, Munic. Airport, Oakland, Calif.: C-P.

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NEEDLES FLYING SERVICE, P. O. Box "E", Needles, Calif. NELSON FLYING SERVICE, A. V., Box 414, Brookings, S. D.

NELSON FLYING SERVICE, Potter, Neb.

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NELSON FLYING SERVICE, Washington St., St. Louis, Mich.

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        NEW BERN AVIATION CO., Box 151, New Bern, N. C.
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NewNan, Ga.

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NIAGARA SEAPLANE SERVICE, Box 315, N. Tonowanda, N. Y.

NICOL CHARTER SERVICE, Black Mountain, N. C.

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NICOL CHARTER SERVICE, Sily 3rd Avenue S., Great Falls, Mont.

NILSON FLYING SERVICE, Kisters Field, Bloomington, Ind., James Robert Nilson, Prop.

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NORCROSS FLYING SERVICE, Winthrop. Me.

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NORRIS AIRWAYS, Centerville, Ia.
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NORTH PARK AVIATION CO., Box 273, Walden, Colo.
NORTHEAST AIR SERVICE, Box 183, Granville, N. Y.
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V. Smith, pres.; UC-78, Reliant, Voyager 150, Taylorcraft L2M, PT-19, 4 Ercoupes, 6 Cubs (Station Wagon); AO—New England; C-P-I. PT-19, 8 Eroupes, 6 Cubs (Station Wagon),
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NORTHWEST AVIATION SALES, INC., Troutdale Airport, Trout
dale, Ore.; Fred K. Cheek, Jr.; Reliant, AT-6, Voyager, 2 Aeroncas,
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Swifts); AO—Pacific Northwest; C-P.
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NORTON FLYING SERVICE, Benkelman, Neb.
NORTON SCHOOL OF AVIATION, Norton, Va.
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OAKLEY BROTHERS FLYING SERVICE, Box 719, Topeka, OAKLEY BROTHERS FLYING SERVICE, Box 719, Topeka, Kan.

OCEAN AIR TRADEWAYS, Ronkonkoma, L. I., N. Y.; C-P.

OCEAN VIEW AIRWAYS, P. O. Box 93, Beaufort, N. C.

OLYMPIC AIRWAYS, 1012 Queen Anne Ave., Scattle, Wash.

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C. Mueller, spres.; Aeronca, Cruiser, Ercoupe, Stinson, Cessun 140, 6 Cubs; AO—local; P-I.

OMAHA STANDARD INC., 2411 W. Broadway, Council Bluffs, Ia.

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ORR FLYING SERVICE, Modisett Airport, Rushville, Neb.; Leo E. Orr, prop.; PA-12, J3; AO—U. S.; C-P.

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R. Carl Van Keuren, prea.; Stinson 150, Taylorcraft, Aeronca; AO—
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PLAINS AIRWAYS, INC., Box 299, Cheyenne, Wyo.

PLAINS FLYING SERVICE, Box 1657, Amarillo, Tex.

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PORTER, HARRY, Lovell Field, Chattanooga, Tenn.
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Howard, Stinson 10, 2 FT-25a, Noorduyn UC-64, Stinson SR-6,
Howard, Stinson 10, 2 FT-25a, J. Luscombes, 3 Cubs; AO—U. S.,
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RIVERTON FLYING SCHOOL, Box 589, Riverton, Wyo.
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DC-3; AO—U. S., Alaska, Canada, Mexico; C-P.
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ROSING, H. J., 306 Highview Road, Middletown, Ohio.
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ROUNDUP SKYRIDERS, Box 164, Cessna 170; AO—U. S.; C-P-S-I.
ROUNDUP SKYRIDERS, Box 174, Roundup, Mont.
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ROUNDUP SKYRIDERS, Box 166, Ft. Worth, Tex.; E. F. Russell,
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1, Calif.; Bradley C. Woodman, prop.
SANDHILL AIRWAYS, Gordon, Neb.
SANDPOINT AIR SERVICE, Box 488, Sandpoint, Ida.
SANFORD AVIATION CO., Sanford Airport, Sanford, Me.
SANGER FLYING SERVICE, INC., Box 178, Kelso, Wash.
SARA FLYING SERVICE, 12610 Central Ave., Los Angeles
SAX AVIATION CO., Dickinson, N. D.
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SCHNEIDER FLYING SERVICE, Box 712, Seguin, Tex.
SCOTT AIRCRAFT SALES, INC., Munic. Airport, El Paso,
Tex.

Tex. SCOTT FLYING SERVICE, New Orleans Airport, New Orleans La.

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SCOTTIE'S CHARTER SERVICE, 802 Valley, Avenal, Calif.; Willis E. Scott, pres.; Howard DGA-15; AO—Calif.; C-P-A.

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SEABOARD & WESTERN AIRLINES, INC., 16 Liberty St., N. Y.; Raymond A. Norden, pres.; 5 C-54s; AO—N. Y., Europe, Middle Rast; C.

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Taylocraft; AO—N. C.; C-P.

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SHANKSTER FLYING SERVICE, Box 501, Newcastle, Wyo.

SHANNON AIRCRAFT, Box 531, Marfa, Tex.

SHASTA FLYING SERVICE, P. O. Box 517, Fall River Mills, Calif.

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SISKIYOU AIRWAYS, Box 186, Montague, Calif.
SISKETON FLYING SERVICE, Sisseton, S. D.
SKY COURT AIR SERVICE, Sky Court Airport, 861 N. 2nd St.,
Albuquerque, N. M.
SKY HARBOR AIR SERVICE, P. O. Box 138, Cheyenne, Wyo.
SKY HARBOR AIR SERVICE, INC., Box 649, Phoenix, Ariz.
SKY HARBOR AIRPARK, Box 1069, San Angelo, Tex.
SKY HARBOR AIRWAYS, INC., Munic. Airport, Niagara Falls, N. Y.;
John J. Stolz, pres.; PT, Twin Cessna, single-engine Cessna, Stinson,
5 Cubs; AO—U. S., Canada; PL.
SKY HARBOR FLYING SERVICE, Lewiston-Auburn Airport,
Auburn, Mo.

Auburn, Me.

SKY SERVICE CORP., Munic. Airport, Evansville, Ind.; Ellis A. Carson, pres.; Cessas T-50, Station Wagon, Cessas 140, Aeronca; AO—U. S.; C.P.

SKY SERVICE CORP., Parnell Field, Stop 12, Petersburg Pike, Richmond, Va.; R. Finkney Sowers, pres.; Chief, Cruiser, Norseman, 7 Champions; AO—Richmond ares; C-P-S.

SKY SERVICE, INC., 711 S. State St., Ann Arbor, Mich.; C. M. Dizen, pres.; Bonansa (2 Bonansas); AO-U. S.; C-P.

SKY TRAVEL, INC., Munic. Airport, Houston, Tex.

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SKYCRAFT, INC., 1983 50th Place N., Munic, Airport, BirmIngham, Ala.

SKYCRAFT SCHOOL OF AVIATION, Munic, Airport, BormIngham, Ala.

SKYGO, INC., 2415 Hubbard Rd., Youngstown, Ohio

SKYHAVEN INC., Box 42, Lakeport, N. H.

SKYHAVEN INC., Box 42, Lakeport, N. H.

SKYLANES EXPRESS, INC., Box 1123, Macon, Ga.

SKYLIFE, INC., 13801 N.E. Halsey St., Portland, Ore.; Don Plympton, prea.; 6 Funks (UC-78); AO—Pacific NW; C-P. Cargo not
azoseding 60 ha.

SKYLINE AIR CHARTER, 13610 S. Central Ave., Los Angeles; G.

William Werstlein, prea.; Twin Cesana, 2 Voyagers; AO—West; C-P.

SKYLINE AVIATION SERVICE, Warren County Airport,
Glens Falls, N. Y.

SKYLINE AVIATION SERVICE, Warren County Airport,
Glens Falls, N. Y.

SKYLINES, INC., Drawer 271, Asheboro, N. C.

SKYTRAIN AIRWAYS, INC., 310 Balter Bidg., New Orleans; Edward
D. McGee, pres.; DC-4; AO—Central America; C.

SKYWAY AIR SERVICE, INC., Newell, S. D.; C. W., Fiegen, prea.;
Fairchild 24, 2 Cesanss (Cesans 170); AO—Midwest; P.

SKYWAY ASSOCIATES, Box 1366, Bakersheld, Calif.

SKYWAYS AND SERVICE, Box 2006, Great Falls, Mont.

SKYWAYS AND SERVICE, Box 2006, Great Falls, Mont.

SKYWAYS, INC., Municipal Airport, Norfolk, Neb.

SKYWAYS, INC., Municipal Airport, Norfolk, Neb.

SKYWAYS, INC., Municipal Airport, Box 552, La Crosse, Wis.

SKYWAYS, INC., Municipal Airport, Box 552, La Crosse, Wis.

SKYWAYS, INC., Municipal Airport, Box 652, La Crosse, Wis.

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SKYWAYS, INC., Municipal Airport, Box 652, La Crosse, Wis.

SKYWAYS, INC., Municipal Airport, Box 652, La Crosse, Wis.

SKYWAYS, INC., Box 1121, San Antonio, Tex.; Earl F. Slick,

pres.; AO—Burbank, Chicago, Dallas, Detroit, Ft. Worth, Holtville

(Calif.), Newark, N. Y., Peoria, Phila., Balinas, San Antonio, San

Francisco, South Pend, Stockton, St. Louis, Thermal (Calif.), Toledo,

Waterbury, Visalls (Calif.); C.

SMITH AUIATION, Rt. 4, Box 210, Kent, Wash.

SMITH FLYING SERVICE, Box 225, Lampasas, Tex.

SMITH FLYING SERVICE, Box 255, Lampasas, Tex.

SMITH-LIV

Ore.

SMYER AIRCRAFT SALES & SERVICE, Box 988, Municipal Airport, Ponca City, Okla.

SNYDER AVIATION, INC., Barrington, N. J.

SNYDER ROBERTSON FLYING SERVICE, Box 79, Ottawa,

Kan.

SNYDER, ROY E., Ainsworth, Neb.

SNYDER, STANLEY W., Charter & Air Taxi Service, 1 Hillside Ave., Great Neck, N. Y.

SOMERSET AIR SERVICE, INC., Box 46, Bedminster, N. J.; Samuel Freedman, pres.; Bonanza, Cessna 140, AT-6, Cub Coupe; AO—U. S.;

SONORA AIRWAYS, Boy 502, Sonora, Calif.
SOURDOUGH AIR TRANSPORT, Box 1639, Fairbanks, Alaska; A. R.
Johansen, pres.; C-46; AO—U. S., Alaska; C-P.
SOUTH BEND FLYING SERVICE, INC., Chain Lakes Airport,
SOUTH BENT, Ind.
SOUTH CENTRAL AIR TRANSPORT, INC., Box 544, Fayetteville, AFR.

south Central air Transport, Inc., But on, Payette ville, Afk.
SOUTH DAKOTA AIRWAYS, Box 602, Yankton, S. D.
SOUTH EAST AIRLINES, INC., Douglas Airport, Charlotte, N. C.
SOUTH PLAINS AIRCRAFT, Route 3 Munic. Airport, Lubbock,

Tex.
SOUTH TEXAS AIR ROUTES, Box 1476, Corpus Christi, Tex.
SOUTHBRIDGE SKY PARK, INC., Southbridge, Mass.; C. Stanley
Knight, pres.; Voyager, Cessna 140, 2 Cessna 120s, 2 Champions;
AO—500 miles from base; P.
SOUTHERN AERO ENGINEERING, Box 1177, Orlando, Fla.; W. W.
Sterre, pres.; T-50, 2 Taylorcraft BC12D; AO—Southern & Eastern
H. S. C.P.

SOUTHERN AERO ENGINEERING, Box 1177, Orlando, Fla.; W. W. Stere, pres.; T-50, 2 Taylorcraft BC12D; AO—Bouthern & Eastern U. S.; C-P.
SOUTHERN AIR SERVICES, Sanders Field, Walls, Misa.; Mrs. Louise C. Kent, prop.; Super Cruiser, Bonanza, PA-11, Chief, 5 Cubs; AO—X; C-P.
SOUTHERN AIR TRANSPORT, 3191 S.W. 19th Terrace, Miami; F. C. Moor, pres.; DC-3 (2 C-46s); AO—U. S., South America; C.
SOUTHERN AIRCRAFT BALES CO., INC., New Orleans Airport, New Orleans, La.
SOUTHERN AIRWAYS CO., Munic. Airport, Atlanta, Ga.
SOUTHERN AIRWAYS CO., Box 308, Munic. Airport, Greenville, S. C.

ville, S. C. SOUTHERN AIRWAYS OR DANVILLE, INC., Munic. Airport,

Danville, Va.

Danville, Va.

SOUTHERN AVIATION CO., Albert Whitted Airport, St. Petersburg, Fla.; Robert D. Leon, pres.; UC-78, Champion (Sedan); AO—Fla.; P. SOUTHERN AVIATION CORPORATION, P. O. Box 1491, Shreveport, La.

SOUTHWEST AVIATION SERVICE, INC., P. O. Box 2516 Oklahoma City, Okla.

SOUTHERN CALIFORNIA AIR AMBULANCE & HEARSE SERVICE, Bellflower Airport, 1451 E. Center St., Bellflower, Calif.

Callf.

SOUTHERN ILLINOIS AIRWAYS, INC., Box 347, Marion, Ill.

SOUTHERN INDIANA AIRLINES, 209 Citizens Nat'l Bank Bldg.

Bedford, Ind.; R. P. Austin, pres.; T.50, Ercoupe; AO—U. S.; C-P.

SOUTHERN KANSAS AIR TRANSIT, Munic. Airport, Anthony,

Kan.; J. Howard Wilcox, prop.; Fairchild 24, Luscombe. Stinson, 4,

Aeroncas (UC.78, Stinson 1.5; AO—U. S.; C-P.

SOUTHERN MISSOURI AIR SERVICE, INC., Rt. 6, Box 349,

Springfield, Mo.

SOUTHERNAIRE CO., Box 186, Hartsville, S. C.

SOUTHMOST AVIATION, INC., Box 1774, Brownsville, Tex.

SOUTHWEST AIR RANGERS, Box 1154, El Paso, Tex.; William E.

Mueller, pres.; Stinson, 2 Silvaires (Silvaire); AO—Southwest; C-P.

SOUTHWEST AIRCRAFT, INC., Meacham Field, Ft. Worth,

Texas.

SOUTHWEST AVIATION SERVICE, Altus, Okla.
SOUTHWEST KANSAS AIRCRAFT SALES, Munic. Airport, Greensburg, Kan.; G. A. Bertram, prop.; Cessna 140 (Cessna 170); AO—U. S.; C-P.

SOUTHWESTERN AIRWAYS, Box 315, Oklahoma City, Okla.

SPA AIR SERVICE, Baliston Spa Airport, Ballston Spa, N. Y.

SPA FLYING SERVICE, Memorial Field, Hot Springs, Ark.

SPAIN'S FLYING SERVICE, 310 Wisconsin St., Sparta, Mis.

SPARTAN AIRCRAFT CO., Munic. Airport, Tulse, Okla.; J. Paul

Getty, pres.; Spartan; AO—X; P.

SPARTAN AVIATION, Box 909, Spartanburg, S. C.; Lewis W. Clay,

ton, pres.; Twin Cessna, Cessna 140, Ecoupe, Super Cruiser, Taylor
craft, PT-17, PT-19, BT-13, 6 Cubs; AO—U. S.; C-P.

SPILLMAN AERO SERVICE, INC., Holyoke, Colo.; Leslie Kunkel,

pres.; Cessna 140, PA-12 (Cessna 170); AO—Phillips Cy., Colo.; C-P.

SPORTSMAN AIR SERVICE, INC., Box 53, Parkwater, Wash
SPORTSMAN AIR SERVICE, 124 N. E. 111th St., Miami, Fla.

SPORTSMEN'S AIR SERVICE, 124 N. E. 111th St., Miami, Fla.

SPORTSMEN AIRWAYS, INC., Sky Harbor, Duluth, Minn.; Robert

L. Bergum, pres.; Norseman Scaplane, Widgeon, Chief, Cub scaplane,

3 Champion scaplanes (2 Aeroncas); AO—North Central U. S., Canada;

C. P.

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Resha, Wis.

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SPRINGFIELD AVIATION CO., INC., Springfield Airport, Box 57,

Springfield, Ill.; Carl A. Sorling, pres.; Stinson 108-1, Aeronca; AO—

U. S.; C-P.

SPRINGFIELD FLYING SERVICE, INC., Rt. 3, Box 90, Spring

field. Mo.

field, Mo. SPRING FIELD FLYING SERVICE, INC., Springfield Airport, Springfield, Ore.; Robert C. Good, pres.; Cruisair, 2 PA-12s; AO—Northwest;

field, Ore.; Robert C. Good, pres.; Cruisair, 2 PA-12s; AO—Northwest; C.P.
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STANDARD AIR CARGO, Boeing Field, Box 16, Seattle, Wath.; C. Canada; C-P.
STANDARD AIRLINES, INC., Adm. Bldg., Long Beach Municipal Airport, Long Beach, Cailf.
STANDLEY FLYING SERVICE, Van Buren, Mo.; William E. Standley, prop.; Fairchild, 3 Aeroncas; AO—U. S.; P.
STARNES AVIATION SERVICE, KENNETH, Box 2534, Little Rock, Ark.
STARRETT AVIATOON CO., INC., Box 529, Spencer, Ia.
STATE AIRLINES, INC., Box 1862, Charlotte 1, N. C.
STATE LINE AIR ACTIVITIES, LTD., Box 157, Birdgeport, Ala.

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STATESVILLE FLYING SERVICE, Box 1162, Statesville, N. C. D. V. Keller. prop.

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ST. FRANCIS FLYING SERVICE, Edgemont, S. D.

STICKNEY FLYING SERVICE, Edgemont, S. D.

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STOVER AIR SERVICE, Memorial Field, Hot Springs, Ark.

STRATO-FREIGHT, INC., Munic. Airport, Albany, N. Y.; AO—X; C.

STRATTON AIR SERVICE, FRANK, Prineville, Ore.

STRAUSS SKYWAYS, R.R. 1, Smith Field, Warsaw, Ind.; Frederick
I. Strauss, prop.; Voyager, Cessna 140; AO—U. S.; P.

STUCKLEY'S FLYING SERVICE, Munic. Airport, Ruston, La.;

S. L. Stuckey, prop.; Voyager, Cessna, 4 Cubs; AO—500 miles from
base: C.P.

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S. L. Stuckey, prop.; Voyager, Cessna, 4 Cubs; AO—500 miles from base; C.P.
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Tenn.
Tenn.
Tenn.
See Valley flight Service. Inc., Fyor Munic.
Airport, Decatur. Ala.; Luke Pryor, pres.; Cub, UC-78. Stearman
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AO-U. S.; C-P.
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Wash.
TERRY AIRCRAFT SALES & SERVICE, Helena, Ark.
TERRY LYING SERVICE, Chapman Field, Waterloo, Ia.; Meryl L.
Terry, mgr.; Stmson 165, 5 Cessna 140s (Stineon, Cessna 170); AO
—Midwest; P.

-Midwest; P.
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N. C.
TEXAS AEROMOTIVE CORP., Box 209, Yoakum, Tex.
TEXAIR AVIATION, INC., 2610 S. Hampton Rd., Dallas 11,

TEXAIR AVIATION, INC., 2610 S. Hampton Rd., Dallas 11, Tex.

TOMCO AVIATION, INC., Munic. Airport, San Antonio, Tex.; F. L. Thomson, Jr.; T-50, Cessna 195, several Cessna 140s; AO—U. S.; C.P-I.

TOMLINSON FLYING SERVICE, 395 North St., P. O. Box 196, Skowhegan, Maine, Leon L. Tomlinson, Prop.

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TOR-WIN, Tor-Win Airport. R. F. D. 3, Winsted, Conn.

TOTEM AIR SERVICE, INC., 7777 Airport Way, Seattle, Wash.; AO—X; C-P.

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TRADEWIND FLYING SCHOOL, Box 348, Amarillo, Tex.

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TRANS-ALASKAN AIRLINES, INC., Box 1711, Anchorage Alaska; AO—X; C-P.

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Ave; AO—X; P.
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AO—X; C.P.
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TRANSAIR, INC., 250 Park Ave., N. Y.; AO—X; P.
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Nelson, pres.: 13 DC-4s; AO—Philipp.nes, China, Okinawa, Japan,
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Bleyle, prop.
TRI ANGLE AIRPORT, INC., Cross Keys, N. J.
TRIANGLE AVIATION, INC., Stanton, Minn.
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Stokes, Prop.
TRI-STATE AIRWAYS, Tri-State Airport, Angola, Ind.
TRI-STATE AVIATION CORP., Cincinnati Airport, Glendale-Milford Rd., Sharonville, Ohio.
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TRULOCK'S FLYING SERVICE, Rte 4, Charleston, S. C.; F. Trulock, prop.; 11-AC, J-5, Taylorcraft DCO, BC-12D, 3 Aeronca 7-ACs;
AO—Charleston area; P-I.
TRUMBLE, RAYMOND G., Chandler Field, Fresno, Calif.
TULSA FLYING SERVICE, Tulsa Commercial Airport, Tulsa, Okla.
TUPPLO FLYING SERVICE, 409 N. Madison St., Tupelo, Miss. ORIA.
TUPELO FLYING SERVICE, 409 N. Madison St., Tupelo, Miss.
TURNER AERONAUTICAL CORP., ROSCOE, Weir Cook Munic.
Airport, Indianapolis; Col. Roscoe Turner, pres.; unspecified number
of Taylorcraft, Vultees BT-13As, cliance, Bonanzas, Seabees, Twinengine Beechcraft; AO—U. S.; C-P-A.
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Institute, Ala.
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C.P. USSELMAN FLYING SERVICE, Parks Metropolitan Airport, East St. Louis, Ill., Harry C. Usselman, Prop. UVALDE FLYING SERVICE, Garner Field, Uvalde, Tex.

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TWIN CITY AIRWAYS, P. O. Box 1185, Texarkana, Ark., Fred W. Kingdon, Jr., & Howard E. Webb, Props.
TYEE AIR SERVICE, INC., Paine Field, Everett, Wash.

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VACIN-HIRST FLYING SERVICE, Box 229, Enid, Okla.

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propa.; Waco, Cessna. Stinson; AO—NE Mont.; C-P.

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propa.; Waco, Cessna. Stinson; AO—NE Mont.; C-P.

VALLEY SLE FLYING SERVICE, Keahua. Maul, T. H.

VAN-AIR SERVICE, 165 Smith St., Poughkeepsie, N. Y.

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VANCOUVER FLYING SERVICE, Pearson Airpark, Vancouver, Wash. ver, Wash. VANDERKLOOT, W. J. & Co., 228 Manhasset Ave., Manhasset, VANDERKLOOT, W. J. & Co., 228 Manhasset Ave., Manhasset, N. Y.

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VICK & EARHEART FLYING SERVICE, Cornelia Fort Airpark, Nashville, Tenn.

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WATSON & TAYLOR FLYING SERVICE, Brewton, Ala.

WATSON FLYING SERVICE, Box 293, Weaverville, Calif.

WEAVERVILLE AIR SERVICE, Box 293, Weaverville, Calif.

WEATHERLY CAMPBELL AIRCRAFT, Highland Park Airport, Rt. 7, Dallas, Tex.

WEBB AVIATION SERVICE, Box 1558, Munic. Airport, Pampa, Tex.;

Roy A. Webb, Jr., pres.; T-50, Cess 140 (Cessna 170); AO—Tex., Okla., N. M.; C-P.

WEBSTER CITY FLYING SERVICE, Webster City Airport, Webster City FLYING SERVICE, Webster City Airport, Webster City, Inc., Box 127, Douglas Airport, Park Ridge, III.; J. L. Weidle, pres.; D18S; AO—North & South America, including islands, except Bermuda; P.

WEISS AIRPORT, Rt. 12, Box 140, Kirkwood 22, Mo.

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WELBORN AIRCRAFT INC., Box 994, Welch, W. Va.

WELDORN AIRCRAFT LINC., Box 909, Greeley, Colo.

WELLE AIRCRAFT CORP., THE, Chemung County Airport, Elmira, N Volpe, pres.; Voyager, Süper Cruiser, Ercoupe, 6 Cub trainers; Eastern states & Canada; C.P. VOSSLER FLYING SERVICE, Box 387, Porterville, Calif. Kan.; P-I.
WERLE FLYING SERVICE, Werle Airport, Dunkirk, N. Y.
WERNER FLYING SERVICE, INC., Box 302, Tomahawk, Wis.
WES-TEX AIRCRAFT, Rt. 3, Munic. Airport, Lubbock, TexWEST CENTRAL AIRLINES, INC., Sterling Bldg., Houston. WESTFIELD FLYING SERVICE, INC., Leckrone Field, Salem, Ift. WEST LANE FLYING SERVICE, Box 1229, Stockton, Calif. WEST MEMPHIS FLYING SERVICE, INC., Box 475, West Memphis, Ark. WEST VIRGINIA AIR SERVICE, INC., Box 401, Clarksburg. Memphis, Ark.

WEST VIRGINIA AIR SERVICE, INC., Box 401, Clarksburg.
W. Va.
WESTERN AIRCRAFT CORP., Munic. Airport, Caldwell, Ia.
WESTERN AIRCRAFT SALES, Hangar 1, Oakland Airport,
Oakland, Calif.
WESTERN FLYING SERVICE, Box 745, Clovis, N. M.
WESTERN MICHIGAN FLYING SERVICE, INC., Munic. Airport, Kalamazoo, Mich.
WESTERN SKYWAYS SERVICE, Portland-Troutdale Airport, Troutdale, Ore; C-P.
WESTERN STATES FLYING SERVICE, Box 474, Reedsport, Ore. WESTERN STATES FLYING SERVICE, Box 474, Reedsport, Ore.

WESTERN WASHINGTON AIRCRAFT, INC., Box 204, Bellingham, Wash.

WESTHOPE FLYING SERVICE, Westhope, N. D.; William B. Shaffer, pres.; Aeronca, Cubs, Cessnas; AO—local; C-P.

W. F. AIR SERVICE, Box 101, W. Frankfort, Ill.

WHEATLEY FLYING SERVICE, W. C., 121 Main St., Clayton, N. M.

WHITE BEAR FLYING SERVICE, South St. Paul, Mins., A. R. Metzger, prop.

WHITE FLYING SERVICE, Box 663, Brownwood, Tex.; Alva N., White, prop.; Cessna 120, Cessna 140, T-50 (Cessna 170); AO—U. S.; C-P.

WHITE FLYING SERVICE, 115 Berkshire, San Antonio, Tox., WHITE FLYING SERVICE, 115 Berkshire, San Antonio, Tox.

WHITE FLYING SERVICE, 116 Berkshire, San Antonio, Tox.

WHITE FLYING SERVICE, 117 Berkshire, San Antonio, Tox.

WHITE FLYING SERVICE, 118 Berkshire, San Antonio, Tox.

WHITE FLYING SERVICE, 118 Berkshire, San Antonio, Tox.

WHITE FLYING SERVICE, INC., 241 N. Shaver St., Portland 12 Ore. WIK'S AIR SERVICE, INC., 241 N. Shaver St., Portland 12. Ore.

WILKS FLYING SERVICE, Fayetteville, Tenn.; Clyde W. Wilks. pres.; PA-12, Voyager; AO—U. S.; C-P.

WILLAMETTE AIRPARK BEV'S FLYING SERVICE, Box \$43, Eugene, Ore.

WILLETT FLYING SERVICE, GUS, Box 41, Brookfield, Mass. Gus Willett, prop.; Cessna 140, Taylorcraft; AO—U. S., Cansada; C-P.

WILLIAMS AIRCRAFT, 427 Patton, San Antonio 7, Tex., O. K. Williams, Prop.

WILLIAMS FLYING SCHOOL, INC., Box 1955, Phoenix, Ariz. WILLIAMS FLYING SERVICE, Box 430, Little Rock, Ark. WILLIAMSON AIR SERVICE, Stapleton Airfield, Denver, Colo. WILLIS AIR SERVICE, INC., Teterboro Air Terminal, Teterboro. N. J.; Charles F. Willis, Jr., pres.; C-54, 3 DC-3s; AO—Bostos. Chicago, Cleveland, Des Moines, Indianapolis, Jacksonville, Los Angeles, Miami, Milwaukee, Newark, New Bedford, N. Y., Phila., Providence. San Francisco, Sarasotsa, Wash., D. C., Tamps; C.

WILLIS AVIATION CO., Munic. Airport, Brownwood, Tex.; Harvey T. Furry, pres.; Voyager, Bonanza, Cub Cruiser (Station Wagon): AO—local; C-P.

WILLMAR AIR SERVICE, Willmar, Minn.

WILSON & BENNETT FLYING SERVICE, Dexter, Mo. WILSON FLYING SERVICE, INC., Box 1529, Pocatello, Ida.; E. M. Wilson, pref.; BT-13, PT-26, UC-78, 6 Champions; AO—U. S.; C-P. WINDHAM AIRWAYS, INC., Windham Airport, Willimantic Conn.

WINDLE AVIATION CO., Millbury, Mass.; W. W. Windle, pres.;

Conn.
WINDLE AVIATION CO., Millbury, Mass.; W. W. Windle, pres.;
Cessna 140, Stinson 165; AO—New England; C-P.
WINGED CARGO, INC., 921 Land Title Bidg., Phila.; Fred P. Dollenberg, pres.; unspecified no. of DC-3s; C.

WINGED HEART FLYING SERVICE, Box 476, Effingham, Ill. WINGS SERVICE, INC., Wood Co. Airport, P. O. Box 1878, Parkersburg, W. Va. WINSLOW FLYING SERVICE, 310 W. 4th St., Winslow, Ariz. WINTER FLYING SERVICE, Kanarado, Kan. WISENER, BRYCE C., 625 W. Kilpatrick St., Mineola, Tex. WITCHER FLYING SERVICE, Box 323, Georgetown, S. C.; P. R. Witcher, pres.; Super Cruiser; AO—X; P. WOLVERINE AIR SERVICE, Comstock Park, Mich. WOODBURY AIRPORT, INC., Mantua Pike, Woodbury, N. J. WOODRING FLYING SERVICE, INC., Woodring Field, Enid Munic. Airport, Enid, Okla.; Vega, Stinson 150, BT-13, Bonanza, 2 Cessna 120s, 2 Cessna 140s (Cessna 170); AO—U. S., mainly Okla.; P-I. WOOD RIVER FLYING SERVICE, Box 568, Hailey, Ida.; Robert E. Savaria, pres.; Waco YKS, Aeronca 11-AC; AO—U. S.; C-P. WOODRUM FLYING SERVICE, Woodrum Field, Box 1066, Roanoke, Va.
WOODS, W. M., 4804 Bond St., Boise, Ida.
WORLAND FLYING SERVICE, Box 692, Worland, Wyo. WORSHAM FLYING SERVICE, Box 662, Rock Springs, Wyo. WYOMING AIR SERVICE, Box 662, Rock Springs, Wyo. WYOMING FLYING SERVICE, INC., Box 257, Clio, S. C. WYOMING FLYING SERVICE, Box 662, Rock Springs, Wyo. WYOMING SKYWAYS, INC., Box 219, Munic. Airport, Cheyenne, Wyo.; Lyle R. Rosendahl, pres.; Stinson 150, T-50, 2 Cessna 140s (Cessna 140, Cessna 170); AO—U. 8.; C-P.

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WYOMING WESTERN AIRWAYS, Evanston or Kemmerer, Wyo.; Lawrence R. Modula, paes.; C-uiser, BT-13 (Twin Cessus); AO— U. S.; C-P-S.

YADKIN VALLEY FLYING SERVICE, INC., Box 646, N. Wilkesboro, N. C.
YAKIMA SKY CHIEF, Box 407, Yakima, Wash.; Richard C. Red, pres.; DC-3; AO-U. S., Canada, Alaska; C-P.
YANKEE AIRWAYS, Box 868, Portamouth Munic. Airport, Portsmouth, N. H.
YANNITELLI, DONATO, JR., Garrison-on-Hudson, N. Y.
YAZOO AIR SERVICE, Rt. 2, Box AA, Yasoo City, Mich.
YELLOWSTONE SCENIC AIRWAYS, Box 902, Livingston, Mont.
YORKTOWN FLYING SERVICE, Yorktown Airport, Yorktown, Ind.
YOUNG AIR SERVICE, Box 101, Fort Bragg, Calif.

ZIGLER FLYING SERVICE, INC., P. O. Box 877, Jennings. ZIMMERLY AIR TRANSPORT, Box 288, Lewiston, Ida.; Bert Zimmerly, prop.; Travelair, Voyager, 2 Airmasters, 2Cubs, 3 Cessna 140s (Voyager, Cessna 170); AO—U. S. & territories, Canada, Mexico; C-P.

	FOREIGN	AIR MAIL—PER	1/2 OUNCE	
Aden	FOREIGN  Corsica 15c Costa Rica 10c Cuba Rc Curscoo 10c Cyprus 25c Cyrenaica 15c Caschoslovakia 15c Caschoslovakia 15c Dahomey 25c Denmark 15c Dominica 10c Dominica Republic 10c Ecuador 10c Ecuador 10c Ecypt 15c Eire (Ireland) 15c Eire (Ireland) 15c Eiricea 25c Ethiopia 25c Ethiopia 15c Estonia 25c Ethiopia 15c Estonia 25c Ethiopia 15c Eralkland Islands 15c Fralkland Islands 15c Filliand 15c France 15c French Cameroons 25c French Cameroons 25c French Guiana 10c French Guiana 25c French Guiana 25c French Indo China 25c French Settlements in India 25c French Somailland 25c French Togoland 25c Gambia 25c Germany 15c	Guatemala 10e Haiti 10e Honduras (Rep.) 10e Hong Kong 25e Hungary 15e Iceland 15e India 25e Iraq 25e Iraq 25e Iraq 25e Italy 15e Italian Somaliland 25e Ivory Coast 25e Jamaica 10e Japan 25e Kenya 25e Latvia 16e Labuan 25e Latvia 15e Lebanon (Rep.) 25e Libya 15e Libya 15e Libya 15e Licehtenstein 15e Lithuania 15e Luxembourg 15e Macao 25e Madagascar 25e Manchuria 25e Martinique 10e Mauritania 25e Mauritania 25e Monaco 15e Montserrat 10e Moroseco 15e	New Guinea, Mandated Territory 25c New Hebrides 25c New Hebrides 25c New Hebrides 25c Nicaragua 10c Niger 25c Nicaragua 10c Nigeria 25c Northern Roneo 25c Northern Rhodesia 25c Northern Rhodesia 25c Norway 15c Nyasaland 25c Pakistan 25c Pakistan 25c Pakistan 10c Papva (British New Guinea) 25c Panama 10c Papva (British New Guinea) 15c Portuguese India 25c Portuguese East Africa 25c Portuguese Gunea 25c Portuguese India 25c Portuguese India 25c Portuguese India 25c Portuguese India 25c Portuguese Timor 25c Redonda 16c Reunion Island 25c Reunion Island 25c Ryukyu Islands 25c Saba 10c St. Christopher 10c St. Helena 25c	Samoa, Western (British)
Bulgaria	Gambia	Montaerrat	St. Eustatius	South Africa25c Uruguay10c U. S. S. R15c
Canary Islands	Gilbert & Ellice Lilands Colony	Netherlands Indies	St. Lucia	Zanzibar (incl.
Cook Island25e	Grenadines10c Guadaloupe10c	Newfoundland (incl. Labador)10c	Salvador (EI)10e	Pemba)25e

<b>International Air P</b>	rnational Air Parcel Post Rat				ited S	States			
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Austria	\$1.05 .4		\$4.48 \$6.44	\$10.86	\$20.16	\$43.68	22		
Azores			3.79 5.55	9.07	17.87	19.68	11		
Belgian Congo	1.38 .7		6.91 10.07	16.39	32.19	139.63	44		
Bermuda			1.67 2.19	3.23	5.83	12.07	. 22		
Czechoslovakia	.88 .4		4.24 6.16	10.00	19.60	84.88	- 44		
Denmark Egypt	.97 .4		4.26 . 6.14	9.90	19.30	83.22	44		
Egypt	1.35 .6		5.83 8.89	18.51	26.31	57.08			
Cire (Ireland)	.97 .3		3.56 5.04	8.00	15.40	16.88	11		
finland	.88 .5		4.45 6.49	10.57	20.77	90.13	44		
fold Const Colony			5.66 8.22	13.34	. 26.14	56.86	22		
Great Britain & No. Ireland	1.00 .4		3.87 . 5.51	8.79	16.99	36.67	22		
reece	1.07 .5		5.06 7.34	11.90	23.30	80.66	22		
celand	.89 .8		3.20 4.53	7.16	13.76	58.64	44		
taly	1.08 .5		4.58 6.58	10.58	20.58	44.58	22		
Netherlands	.89 .4		3.90 5.62		17.66	76.14	44		
Newfoundland	.76 .1		1.88 2.52	3.80	7.00	10.20	15		
Norway	1.02 .4		4.31 6.19	9.95	19.35	83.27	44		
Portugal	.71 .4		3.79 5.55	9.07	17.87	38.99	224		
weden			4.28 6.24	10.16	19.96	86.60	44		
witzerland	.93 .4		4.07 5.87	9.47	18.47	79.67	44		
Cunisia	1.11 .5		4.89 . 7.05	11.37	22.17	95.61	44		
Purkey	1.16 .6		5.14 7.42	11.98	23.38	100.90	44		
Union of South Africa	1.31 .9	4 4.18	7.89 11.65	19.17	37.97	41.78	- 11		
	Portugal-	mit applies on -\$19.63. ght limits are							

# AIR FREIGHT FORWARDERS

EARLIER this month, the Railway Express Agency was denied permis-sion by the Civil Aeronautics Board to perform the same ground service for the air freight lines as for the scheduled airlines. In announcing the denial, the Board stated at the same time that this action would not preju-REA's application in the Air Freight Forwarder Case, still awaiting the report of the examiner.

On the same day, the applications of Emery Air Freight, Air Dispatch, Air Freight Forwarders Association, and West Coast Aircraft Sales and Service, asking immediate issuance of a temporary regulation providing permits to engage indirectly in air transportation, were turned down by the CAB. These applications had been

filed last Summer.

The Board called the pleas presented by REA and the others "difficult questions of far-reaching importance," and

but, in spite of the announcement, no commissions will be paid on Canada-bound cargoes. Now AA is paying air cargo agents on the domestic as well the international portion of the

From Peruvian International Airways has come further backing from the forwarder, this time from Edward G. Bern, vice president traffic and G. Bern, vice president trains and sales, whose statement included travel agents. He stressed the fact that "the travel agent and the freight forwarders play a vitally important part" in PIA's international operation.

"When a passenger comes to us from the company of the property of t

one of our authorized travel agents," he said, "he is completely documented are ready to go aboard our airplane. The same is true of every pound of express that comes from the freight forwarder. In each instance, we re-ceive slightly less net, because of the routed packages are routed for fastest delivery. In many cases, however, the airline is specified by the consignor. Air freight charges do not enter the scope of the operation. MAFT finds its profit in the difference between the package rate and the bulk rate for trucking from the terminal to the air-

This type of operation is particularly adapted to New York, where the volume of business is big enough to warrant profits. Big air shippers, who can get a bulk rate, are in a position to save thousands of dollars in shipping charges a year. Among the shippers doing business with Kreis are F. and R. Lazarus Company, Columbus; John Shillito Company, Cincinnati; Ed Schuster and Company, Milwaukee; Powers Dry Goods Company, Minneapolis; and Mongomery Ward. Lezarus, for example, is good for near-ly two tons of air cargo every night. One peak night, last month, found the terminal handling a total of 13,000 pounds of airborne goods.

Trucking firms pick up the shipments on regular schedules. Daily trips are made to LaGuardia, Newark, and Teterboro Airports, and when Idlewild is opened next Summer, it also will be served.

Other officers of the Midtown Air Freight Terminal include William Coleman, vice president; and Arthur Moses, secretary-treasurer.

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J. Earl Cox, Civil Aeronautics Board examiner, late this month recommended an official stamp of approval for freight forwarders in air transportation, and asked that the CAB requests Congress for "an appropriate amendment to the Civil Aeronautics Act of 1938" to provide for freight forwarder permits which would authorize bone fide forwarders to conduct such business.

Also urged by Cox were an exemption order which would permit the Railway Express Agency to utilize the services of the air freight lines (non-certificated air cargo carriers). Agency to utilize the services of the air freight lines (non-certificated air cargo' carriers), and the undertaking of a ravision of contracts, now in effect between REA and the direct carriers, so as to provide for the payment by REA to the air carriers of a fixed amount per ton-mile of air express transported. In addition, it was proposed by the examiner that REA be permitted to fix rates for air express which would be stated in REA contracts.

If Cox's recommendations are accepted by the CAB, all freight forwarders would be permitted to do domestic air business. It was pointed out, however, that the proposal would require each forwarding firm to report all stock holdings of five percent or more, which would indicate any possible control by a surface carrier in the air carrier field.

There will be more on this in next month's Issue of Air Transportation.

stated that before a definite decision could be reached it needed the benefit of the forwarder proceeding. There are approximately 80 applicants seeking authority to operate.

It was noted by Josh Lee, CAB member, that a proposed regulation temporarily permitting air freight forwarders to operate domestically has been offered two times to the industry for comment. Also, it has been argued twice before the Board. Lee pointed out in his dissenting opinion that "had the Board granted the proposed exemption (Section 292.6, Economic Regulations) promptly, the results of the operations by the forwarders would have provided us with much of the basic information needed for a decision." He added:

"I doubt the Board's ability to treat the Freight Forwarder Case with any great expedition."

Although Lee would have permitted REA to operate under the proposed Section 292.6, he declared that he was "unwilling to enlarge the special privilege which REA has enjoyed exclusively for a number of years." . . .

American Airlines recently took a step forward when it extended comsion payments to IATA-recognized foreign freight forwarders "from points of origination on American Airlines' system to any destination in the world." For the first time, Mexico is included; commission, but from our viewpoint it is highly worthwhile because it provides a smoother and more efficient operation."

PIA recently plugged its freight forwarders and travel agents in a series of ads in The New York Sun.

. . . . . Already a resounding success is the recently opened Midtown Air Freight Terminal, Inc., 330-342 West 38th Street, New York, right in the heart of the city's billion-and-a-half-dollar a year garment center. A little more than one month old, MAFT has been attracting an average of from 6,000 to 8.000 pounds of air freight a night which is no small potatoes, even for an older organization. The shipments, principally ready-to-wear, are destined to all parts of the United States, as well as to Latin America, Canada, Europe, Africa, and the Philippines.

The organization is no novice at the game, Sam A. Kreis, who heads MAFT, also is president of the United States

Packing and Shipping Company, which firm is a fixture in the teeming gar-ment center. Setting up the terminal was a popular move with the shippers from the very beginning - especially when it became known that the expedited service did not cost them ad-

ditional money. Here's the operation:
Manufacturers, wholesalers, and retailers deliver their packages to the
38th Street drop-off point, where un-

Other industry news:

Flying Cargo, Inc.: This firm, whose headquarters are at 140 Cedar Street, New York, has added a third new-model truck to its fleet. Purpose is to assure shippers prompt pick-up service. Flying Cargo's terminal is lo-cated at 21-23 Albany Street in the

same city.
William H. Massen: Colonel Charles A. Masson, senior member of the Baltimore firm located at 105 South Frederick Street, was recently elected to the City Council. A veteran of both World Wars, serving with the Army Air Forces, he has been active in avistion and shipping matters in Baltimore since 1919. The firm was founded in that city 138 years ago.

Sun Transporters, Inc.: Moving to larger offices, Sun Transporters, Inc. has opened new headquarters at 1123 Broadway, New York. The firm has expanded its operations in the air freight forwarding field. Franklyn

Sheps is vice president.

Trans-Global Shipping Co.: The organization of a fully equipped Air Cargo Department finds at its helm Leo Strauss, formerly manager of a similar department at Alltransport, Inc. TGS has stepped up its services with the addition of another truck. It is stressing same-day pick-up and de-livery. At the same time, the firm has announced the opening of branch offices at New Orleans and Havana

Whitehall Shipping Co.: Air Cargo Department has been opened under the managership of Irving Baum. Ad-

dress is 17 Battery Place, New York.

Dyson Shipping Company, Inc.; Dyson's new, enlarged Air Freight Depot is now located at 610 West 46th Street, New York. According to William H. Clark, general manager of the Air

(Concluded on Page 53)

# Stowing Air Cargo

ROBERT A. TERRY, Manager
HAROLD A. STORCH, Engineer
Sky Products Division, Evans Products Company

There's an art to keeping your airborne goods safe

HE special requirements for securing or tying down air cargo are a great deal different than those of other forms of cargo transportation, and due to the rapid expansion of air shipping, with new problems arising everyday, it is difficult to keep pace with its development.

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One of the greatest difficulties is the lack of an airplane designed specifically for cargo operation. Present cargo-carrying aircraft—DC-3s, DC-4s—were designed primarily for passenger traffic. The only planes in existance engineered solely for cargo are the C-82 Fairchild Packet and the Boeing C-97. Curtiss-Wright, at the present time, has a mock-up on the new CW-32 which promises many improvements. All current production of these planes, however, with the exception of the CW-32, is committed to the Army Air Forces.

Another problem is the lack of standardized light weight shipping containers. This condition will of course always confront us because of the necessity of maintaining the lowest possible container weight.

There are approximately five methods of securing air cargo.

The first consists of rope, webbed straps, Evans Tiedown Equipment. These methods are used principally on mixed cargo. The most important requirement of this equipment is, that it be quick in engagement and release, and also that it provides facilities for taking up the slack when in flight.

When rope is used in conjunction with rope hooks and rope tighteners,

practically any odd-shaped cargo may be secured; however, provision must be made for susceptibility to damage from the cutting action of the rope. The real virtue of rope is its low initial cost and underside of the fuselage. It permits extreme flexibility.

Webbed straps can be used on any will support them. They are excellent on cartons and boxes of all types.

This tiedown equipment consists of a steel rod with a hook on one end, a wooden beam, saddle lock, and operating jack. The operation consists of inserting rod and lock through slotted portion of beam, engaging a tie ring in floor or sidewall and forcing the lock down on the beam with the quick acting jack. This method provides speedy and positive tiedown for barrels, boxes, wheeled vehicles, or any object requiring the greatest possible security against shifting in flight. The rod and lock in conjunction with the jack may also be used to increase the tension on rope lashing.

The second method is the use of bins for securing and segregating cargo. They are usually placed along one side of the plane, preferably the side opposite from the loading door. Construction consists of both side panels and front loading gate being made of light cotton webbing sewed to form a lattice work. The panels are then attached to the floor, side, and roof with snap fasteners. These panels along with the aluminum alloy supports are quickly detachable, and are stowed in ceiling brackets when entire interior capacity



ROBERT A. TERRY



HAROLD A. STORCH

of the plane is required for large items of cargo.

The disadvantage of this system is that it requires individual handling of each article being shipped and does not provide positive proof against shifting of cargo.

A third method is the use of cargo nets or blankets. They have their advantages. The procedure is to build up the load on the floor of the airplane, cover it with a cargo net or blanket which is then snapped into tie rings in floor and drawn tight. It is used primarily on cargoes of light density and is possibly the least complex of the present methods of securing light cargoes.

The fourth method, solid packing or compression packing of cargo, is exactly what the term implies. It is employed to its greatest extent in the air shipment of flowers, cigarettes and other types of low density cargo.

This method, of course, is ideal from a standpoint of cargo space utilization and simplification of tiedown problems; however, unless used in conjunction with palletization or preloaded containers, its value may be decreased by



ABOVE-Rod and beam tie-down equipment.

RIGHT—Tie-down showing rope hook, rope, and rope tighteners

the proportion of added individual piece-handling time.

Preloaded containers or palletizing—the fifth method—deserves more interest. The railroads and trucking companies have used this method for many years. When the time comes that cargoplanes with rectangular cargo space are available, and light-weight pallets that will permit stacking are more than just a mirage, palletizing will have come of age for air shipments. Preloaded containers or pallets must be used if air shippers expect to reach the present high efficiency shown by other methods of shipping.

Progress on the development of a good container or pallet has been fair. New planes and increased volume of business will force its further development and utilization.

The first stage in the road to the final solution of the ideal vehicle for transport of cargo by air is the cargo canoe



or detachable belly container. As presently constituted it consists of a large aluminum shell, properly streamlined, and designed to fit and attach to the type of cargo that offers surface which preloading at the airport warehouse, and is then towed by tractor to the airplane on a special dolly and quickly

attached to the belly of the airplane. Many of us in the transportation industry believe that this is the forerunner of the cargoplane of the future.

Visualize for a moment the airport of 1965. It will be reserved for cargo operations only, and the field will be provided with hangars and warehouse facilities specifically designed for such operations.

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In and around the warehouses will be units quite similar in appearance to our present day truck trailer. They will be supported on wheeled dollies for easy mobility, and loading and unloading methods will be quite similar to those in present day usage.

Here, however, the simile ends, for these large loaded vans will be flown to their destinations. They will be attached to an airplane without a fuselage, and the sky tractor and van combination will fly the world's skyways for the ultimate benefit of all.

### REFERENCE GUIDE TO PREVIOUS ISSUES

At regular intervals, AIR TRANS-PORTATION publishes lists and other information of a specialized nature as a service to its thousands of readers. The following is a handy guide to this information which has appeared in this magazine in the past year.

May, 1947......Texts of Sections 292.1 and 292.5, Economic Regulations.

August, 1947..... Holders & Applicants of Certificates of Public Convenience & Necessity.

October, 1947 .... Foreign Airlines of the World.

October, 1947 ....IATA-Recognized Foreign Freight Forwarders.

October, 1947 .... Airline Distances Between Major Cities of the United States.

November, 1947..Landing Fees.

November, 1947.. Scheduled Airlines of the United States.

December, 1947..Text of Proposed Section 292.6 Economic Regulations.

January, 1948.... 1947 Index.

March, 1948..... International Air Express and Mail Tables.

April, 1948 .... U. S. Air Freight & Irregular Air Carriers.



# Air Cargo to Brazil!

Stark Air Shipping announces the appointment of NORSTAR, LTDA. as General Agents for Brazil to expedite air shipments.

Stark continues its service as agents for all airlines to assist in forwarding shipments to all destinations served by air transport carriers.

One call to send your air shipments—THROUGHOUT THE WORLD

### STARK AIR SHIPPING, INC.

NORSTAR, LTDA. RIO DE JANEIRO, BRAZIL AV. FRANKLIN D. ROOSEVELT 194 120 WALL STREET NEW YORK 5, N. Y. WHitehall 4-3718

### NEVER THE TWAIN SHALL MEET

(Continued from Page 10)

area service, rather than direct service. In other words, air freight can save the small city shipper little time and money by direct service. He gets better service cheaper when he ships by surface carrier to the nearest major terminal and has his goods carried from that point by air.

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Air transportation, in any form, is still not a short-haul business. The feeder lines are working in this direction and are courageously trying to develop this traffic, but it is slow and painful and you see none of the big passenger lines running to get into it.

The air freight carrier will have all he can handle learning to do an efficient job with the major busness we know exists between major areas.

Then we are told that low costs and low rates will not be achieved among those who happen to be interested only in individual segments of the business. That is about the climax to a statement riddled with confusion.

Any elementary business history will tell us that low costs and low rates are directly in proportion to the healthy degree of competition.

And as for a division of business, it has gone on for years in the truckbus, steamship and other businesses without end. It is a logical result stemming from a simple fact. Some corporations like General Motors can effectively handle more than one major operation, but mighty few businesses can, especially in the field of public service, and that is the field civil aviation serves.

The poor job the airlines have done on freight is a glaring example of why segregation is healthy and progressive. Again, look at the segregation in railroads, trucks and busses and steamships.

The fact of the matter simply is that for years, top executives of the certificated lines had no time for air freight. When men within their own companies sought to influence them to the possibilities, they were either squashed or got cargo departments that had only a minor place in the over-all scheme of company operations, no money on which to do a job, no business-building encouragement, and short shrift whenever their operations interfered with the major interests of the carrier-mail and pas-

The very make-up of the passenger lines today is about the poorcst possible guarantee that the air freight



Here's a suitable container to protect air-shipped flashbulbs against radio energy transmitted by airport radar stations. Recent tests showed that 4.75 percent of the common types of photoflash bulbs will ignite when exposed to powerful S-Band radar waves at close distances. The new steel-and-tin can, developed by the Wabash Photolamp Division, Sylvania Electric Products, Inc., is impervious to even the most powerful radar waves at close proximity. It measures 17 inches in height and 12 1/4 inches in diameter, and weighs three pounds.

shipper could get for good service.

The certificated lines talk about serving the small towns but the fact is, whether serving small towns or large, the certificated air carrier is largely limited in service to what he can offer in combination passengercargo airplanes.

What freight airplanes the certificated lines do fly serve only the major cities as do the air freight carriers. They know as we do that the major traffic lies at those points.

Let's look at the airplane—the conventional 21-passenger DC-3 — in which the certificated lines carry most of their freight. It has limited cargo compartments fore and aft. Actually, freight-wise, it carries very little freight, and what is carried must be moved only after mail, passengers, and express are served. Serious restrictions limit both the size and character of freight that can be carried.

For instance, flowers offer one of our largest traffic opportunities, but various certificated lines limit the shipper to a small-size, more costly box, and often refuse his shipments in Winter, both because they can handle only a few such boxes and

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Toronto, Ontario, Canada 28 Wellington Street West because the flowers cannot be carried in the largest compartment, that is in the rear of the plane, because it is unheated and the merchandise would freeze.

Even on the passenger-freight planes, mail and express come ahead of freight. The shipper never knows when a sudden increase of mail, passengers, or express at some intermediate point will necessitate off-loading of his shipment and interminable delay in final delivery.

That doesn't happen on air freight

lines. Off-loading is almost unheard of because these lines are concerned with carrying strictly one kind of cargo - freight - and nothing takes priority over it.

Equally important in this picture of certificated-line freight handling is the matter of employee morale. Employees of an air freight line have nothing else to occupy their attention but the freight. They have no other

On a certificated line, especially at the smaller stations, personnel

### ROUTES RECOMMENDED FOR 6 AIR FREIGHT LINES

The Flying Tiger Line, Slick Airways, California Eastern Airways, Willis Air Service, U. S. Airlines, and Airnews, Inc., have been recommended by CAB Examiners William F. Cusick and R. Vernon Radcliffe for certificated routes and area-to-area scheduled services between the nation's major industrial centers. Following are the recommended routes for the six all-cargo airlines:

FLYING TIGERS

(a) Co-terminal points, Los Angeles; intermediate points, Bakersfield, Fresno, Long th, Oakland, Sacramento, Salinas-Monterey, San Diego, Santa Barbara, Stockton.

(b) Intermediate points: Longview, Portland, Seattle, Wenatchee, Yakima.

(c) Intermediate points: Minneapolis-St. Paul.

(d) Intermediate poits: Des Moines, Kansas

City, Omaha.
(e) Intermediate points: Chicago, Cleveland,
Detroit, Grand Rapids, Milwaukee, South Bend,

(f) Intermediate points: Albany, Binghamton, Boston, Buffalo, Hartford, New York, Newark, Providence, Rochester.

(g) Co-terminal points: Portland - Rockland, Maine.

SLICK AIRWAYS

a) Same as Flying Tigers' "a".

(b) Phoenix.

(c) Brownsville, Corpus Christi, Eagle Pass, ort Worth-Dallas, Houston, Laredo, Mission, San Antonio.

(d) Akron, Cincinnati, Cleveland, Columbus, Dayton, Detroit, Fort Wayne, Indianapolis, Louisville, Peoria, St. Louis, South Bend, Toledo; ter-

illiam Cusick R. V. Radcliff minal point, Chicago; also between points in areas "a", "b", "c", "d" and "e".

(e) Intermediate points: Baton Rouge, Gulfport-Biloxi, Hammond, Mobile, Morgan New Orleans.

(f) Albany, Allentown, Baltimore, Binghamton, Boston, Harrisburg, Hartford, New , Newark, Philadelphia, Providence, Washington Wilmington. (g) Co-terminals: Portland, Rockland (Maine).

CALIFORNIA EASTERN AIRWAYS

(a) Co-terminals Los Angeles-San Francisco, and same California points as in Flying Tigers'

(b) Denver.

William Cusick

(c) Des Moines, Kansas City, Omaha.
(d) Akron, Chicago, Cleveland, Columbus, Dayton, Fort Wayne, Indianapolis, Peoria,
St. Louis, South Bend, Toledo.
(e) Allentown, Baltimore, Harrisburg, Newark, Philadelphia, Pittsburgh, Washington,
Wilmington; terminal, New York.

U. S. AIRLINES

(a) Terminal: Miami; intermediate points: Atlanta, Belle Glade, Fort Myers, Jacksonville, Lakeland, Ocala, Orlando, Sarasota-Bradenton, Savannah, Tampa—St.Petersburg,

Valdosta, West Palm Beach.

(b) Same as Slick's "e".

(c) Akron, Chicago, Cincinnati, Cleveland, Columbus, Dayton Detroit, Grand Rapids, Indianapolis, Louisville, Milwaukee, South Bend.

(d) Terminal point: Minneapolis-St, Paul.

WILLIS AIR SERVICE

(a) Same as "a" for U. S. Airlines. (b) Intermediate points: Albany, Allentown, Baltimore, Binghamton, Boston, Harrisburg, Hartford, Newark, Philadelphia, Providence, Washington, Wilmington; terminal point, New York.

**AIRNEWS** (a) Terminal point: San Antonio; intermediate point, Beeville; terminal point, Corpus Christi.

(b) Terminal point: San Antonio: intermediate points: McAllen, Harlingen; terminal point: Brownsville.

handles all types of traffic—mail, passenger, express and freight—so freight gets taken care of in its turn, which is last. If there is any question as to service, freight gets it only when other more important duties have been performed.

The attitude of the scheduled airlines toward freight over the years has set up a morale-block in their organizations which seriously handicaps their efforts today to cultivate this business. These employees have known through the years that top management had little or no interest in freight. So they had none. That is a morale problem the air freight carriers don't have. Air freight is the only job their employees have to do. Their paycheck depends on it. Knowing that, they work with an incentive which a passenger line employee cannot possibly have. Knowing that the welfare of the company doesn't depend alone on his efforts, the certificated line freight employee is, it stands to reason, less concerned with high performance than the air freight line employee.

### Same Problem

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The certificated lines have, in reverse, the same problem that has plagued the railroads in recent years as air passenger competition grew. For years, the railroads have made most of their money out of freight. So freight gets their major attention. Freight men have more prestige and influence than passenger men in the organizational structure.

Just so, in the certificated lines, the passenger business is their real bread and butter—along with mail. They provide hostesses, free food, ground air-conditioning units, special travel services, much expensive literature and promotion, plush air-planes, many little conveniences such as free gum and souvenirs and what-

not to attract business. But freight is simply tossed into the airplane and forgotten. If it is around, well and good, and they move it as they get time. If not, that's not too important, although to hear the certificated lines cry now, you'd think it was their main business.

So, in the certificated lines for years, it is the passenger man who stands high in company eyes. How many freight men are top executives? I don't know one. The freight man is put up with.

The plain fact of the business is simply this:

The sooner we admit, as we have learned in the railroad, bus, and steamship fields that freight is one business and passenger another, the sooner American business will get better, more efficient, and cheaper air freight service.

There is another field in tihs present battle between the air freight lines and the passenger carriers which needs public attention. I refer to the arguments before the CAB in the freight forwarder case.

Recently the certificated lines set up Air Cargo, Inc. This organization was established by these lines to service their air cargo business on the ground. It is obvious that an organzation created and exclusively controlled by these airlines is going to be of little benefit to their competitors—the air freight lines.

Hence, we are asking the CAB to legalize the long-established freight forwarders of this country to do business with us. Several large surface forwarders, such as Railway Express Agency, Universal Carloading. Acme Fast Freight, and National Carloading have expressed eagerness

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to do business with the air freight lines. They believe a considerable volume of freight will be forthcoming if they obtain CAB approval to act in the field of forwarding air

It cannot be denied that the freight forwarders, reaching their thousands of fingers into every nook and cranny of the transportation world, would develop immediately a large new volume of air freight.

It is an odd fact, too, that the air transport industry has no general licensing of freight forwarders with which to do business. Yet this industry, more than any other form of transportation, needs all the aid in development that it can get. And, it is significant that REA has done more to promote movement of goods by air than all the certificated airlines

The air freight industry needs desperately the experience in traffic handling that would be brought to their assistance by freight forwarders. In our own company, we find that 20 percent of our headaches originate in maintenance and flight operations, and 80 percent in billing, insurance claims, and door-todoor delivery. Many shippers who are wont to ship by air are now using ground transportation because the airlines, both certificated and non-certificated, have fouled up their shipments.

They like the swift coast-to-coast schedules, but they definitely don't like the two or three days it takes to get shipments downtown from the airports. Nor do they care for the complicated transshipping procedure, using several waybills for each off-line shipment. These represent valuable services that could be rendered by the forwarders.

It is contended that Air Cargo, Inc. could provide these services, That may very well be true. But why force on the American public one untried monopolistic company that will not have the spur of competition to keep it trying to improve service? Also, ACI, as we have said, is a child of the certificated lines. So, the air freight lines contend that they, too, should be allowed to proceed with their own ideas for solving this ground handling problem. The certificated lines can avoid doing business with the freight forwarders, and a period of healthy competition will determine which is best and most in the public interest.

Now, let us see who opposes this competitive test. It is not the Board, because they have suggested this pro-

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Oswald Ryan, Acting Chairman, Civil Aeronautics Board (left), congratulating Harold A. Jones, newest member of the CAB, who will serve the remainder of the six-year term of Clarenco M. Young, which expires December 31, 1952. Young resigned recently. A Marine Corps pilot during the First World War, Jones has been a practicing attorney since 1924. He served as Special Assistant Attorney General of the United States from 1927 to 1928, and the following year became Deputy District Attorney of Los Angelos. During the Second World War, Jones served as a major on active duty with the Marines.

posal. It isn't the freight forwarders, because they have spent considerable time, money, and effort to obtain the rights. It isn't the air freight lines, who, incidentally, are still carrying most of the country's air freight. It is only ACI, who, naturally, would like to monopolize the field. It is wholly owned by the certificated lines, whose revenues from air freight over the past 10 years amounts to less than one percent of their total business.

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These lines have little on which to base their authority to speak on what should be done policy-wise in the air freight industry. They have demonstrated in the past 20 years what they thought of the air freight industry. They still have not learned that you can't carry freight in a passenger plane except for small amounts which are carried as an adjunct to what would be a real freight movement. A few small companies with less than \$10,000,000 among them, and with no Government aid or encouragement, have done more in the short space of two years to develop the air freight industry than the whole passenger industry has done in 20 years.

The certificated lines contend that the forwarders are a useless, expensive and unnecessary adjunct to the business of moving goods. If this is so, why did they for two decades leave the job of developing air express to REA? Why didn't they do

it themselves?

It is not inconceivable that the primary reason these lines are opposed to the forwarders is that they will enhance tremendously the chance for survival of the air freight lines. The air freight lines have not and do not intend to operate on a subsidy basis. A non subsidized air transport industry would make the certificated airline companies look weak and inefficient, would place a

premium on efficiency of management and investment, and would serve eventually to eliminate subsidy from the whole industry. Some member might not survive.

If the forwarders fail to do a job in the public interest, they will eliminate themselves. The airlines will still retain their sales and service organizations and the forwarder will be forced to compete with them.

REA has tried repeatedly to get the certificated lines to bring down their express rates to a 20-cent ton-mile level from the 45-60-cent-ton-mile level they are operating on, so that a 30-cent per ton-mile price could be offered by REA and a greater percentage of the public would be encouraged to use the service. This the certificated lines have refused to do, fearing their cost-of-service mail pay rate would be at-

tacked. Was this in the public interest?

The air freight lines are naturally limited in their sales promotion efforts. Their capital is limited and their chances for obtaining more capital in their present status are nil. Financial interests will not finance companies which have no permanent status before CAB and which have no permanent traffic connection of such vital importance as those represented by the forwarders.

So, by their own efforts and foresight have the air freight lines built this industry. Progress is slow and painful. Especially in competition against well-financed certificated lines with adequate capital and the background of Government handouts. The Government has been put in the picture very effectively, too. It cannot allow these lines to go out



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of business. So, if the full volume of air freight business is 20 years developing, it is of small concern to the certificated lines, once they have cornered it for themselves.

The real air freight carriers plead for approval of the freight forwarders to advance the development of their business to major proportions. The certificated air carriers are doing everything possible to hold off the forwarders and delay certification of the air freight lines.

If they are successful, they may well achieve their goal of bankrupting the air freight industry, or obstructing it until it becomes defunct. I can only repeat what I said in our

presentation to the CAB:

"The air cargo industry is still a young, rapidly growing industry with its frontiers only dimly defined. Companies such as the Flying Tiger Line are growing rapidly and are in a state of constant change to meet the ever-expanding range of problems that aircargo carriage presents. Each month of added experience in air cargo handling has only served to reemphasize the potential size of the industry and to underscore the problems which must be resolved in developing a satisfactory pattern for the air freight business. We do not claim that we are providing com-



In the final assembly area of the Boeing Airplane Company plant at Seattle, these 340-mile-an-hour Stratocruisers probably will be in international service within the year. Fifty-five such double-decked transports have been ordered by PAA, SAS, NWA, AOA, UAL, and BOAC.

plete and definite answers to the many problems. We do present a sound, workable program projected as far as available facts warrant.

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(REG. U. S. PAT. OFF.)

THE air cargo industry was fed another jet propulsion pill recently when a letter A written by Cornelius V. Whitney, Assistant Secretary of the Air Force, urged "maximum stimulation" for reasons of national defense. It is understood that the letter addressed to the new CAB chairman, Joseph J. O'Connell, reviewed Whitney's correspondence with O'Connell's predecessor, James M. Landis, whose ousting by President Truman caused many an eyebrow to lift. The Landis reply also was part of the latest Whitney correspondence.

The Air Force is all-out for a highly effective air cargo transportation system, which, in time of emergency, can be geared to military use. Its views are known by the State, Navy, Commerce, and Post Office Departments, as well as the

National Security Resources Board and the Bureau of the Budget.

Complicating the picture is the bitter battle between the certificated airlines and the all-air freight carriers. The arguments are adequately described in the pro-and-con articles, Duplication is Waste, by C. R. Smith, and Never the Twain Shall Meet, by Robert W. Prescott, published respectively in last month's and this month's AIR TRANSPORTATION.

Although a decision in the so-called Air Freight Case must be made by April 21, it probably won't end the battle. But the defense-minded chaps in Washington may get their backs up and put on the screws for a final settlement. At any rate, everybody appears to be agreed that air cargo can no longer be treated

as a stepchild.

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It was learned some time ago that the Air Material Command at Wright Field. Ohio, would lease a goodly number of C-46F Commandes to "financially responsible organizations" at the rate of \$300 per month per plane. Colonel George E. Schaetzel, Chief. Aircraft and Missles Section, Procurement Division, informs us that "the cost of preparing the aircraft for one time flight by Government personnel, prior to release, and all costs of modifying the airplanes for commercial service will be at the sole expense of the lessee." Leasing of these cargoplanes is for a period of four years. Hull insurance in the amount of \$20,000 is required for each leased ship; in addition, the lessee must carry insurance coverage for loss or damage to other property and liability to third parties.

Under a plan effected jointly by Northwest Airlines and Scandinavian Airlines System, air shippers can send their cargoes between any two points on both lines with only a single way-The previously announced COD plan holds true here, too. According to R. O. Bullwinkel, vice president-traffic for NWA, both lines are studying the advisability of commodity rates on a number of items. Said Bullwinkel:

"The growing volume of traffic of all kinds between the United States and northern Europe has revealed a need for a simplified shipping arrangement. The fact that a shipper can send cargo from Seattle to Stockholm in a day's flying opens for the first time a profitable market in the Scandinavian countries."

AIR TRANSPORTATION predicts more arrangements like this very soon, too.

Now that international air parcel post is under way, here is an exten-sive list of badly needed articles suitable for air-shipment to the countries having such service:

Aspirin; antiseptic mouth wash; absorbent cotton tablets; adhesive tape; air cushions; air rings; boric acid; bicarbonate of soda; BFI powder, bandaids; baby bottles and nipples; brushes; baby powder; baby foods; buttons; bed pans; bed jackets; calcium tablets; canned heat and stoves; cutlery; colored eye glasses; cocoa; citric acid crystals; clinical thermometers (Fahrenheit & Centigrade); cod liver oil; cellulose wadding; DDT; dental floss;





Going over the first batch of air parcel post packages being sent overseas are (left to right) Postmaster Albert Goldman of New York City: Alma Doran, PAA: Mary Woods, AOA; Marjorie Page, TWA; and Genevieve Farrel, Colonial. Consult Air Transportation's International Air Shipping Tables for air parcel post rates.

textiles; diapers; dehydrated dress

soups; douche cans and tubing.
Eye cups; first aid kits; feeding cups; gargles; glucose; hospital slip-pers; halibut liver oil; hot chocolate powder; hairpins; hard candy; Halazane tablets (water purifiers); hot water bottles; heating pads; ice bags; inhalants; infant wear; kidney trays; Larkspur lotion; lozenges; layettes; needles; olive oil; plastic dishes; pencils; paper tissues; pins. Quinine; rubber tubing; razors and

blades; rubber gloves; powdered cof-fee; powdered milk; powdered eggs; sputum utensils; surgical instruments; syringes: socks: salves for burns: Scotch tape; simple headache tablets; scissors; sanitary napkins; surgical gauze; soap; tongue depressors; towels; toothbrushes; toothache drops; thread; underwear; urinals; vitamins; vaseline; wash cloths; workshirts.

. . . . . The glad hand for Trans-Canada Air Lines' new cargo service! Inaugurated last month, TCA's new service is operative on its domestic, overseas, and United States routes. No newcomer to the business of flying property, TCA has been transporting express for a decade. C. P. E. Holloway, cargo topkick in the New York area, reveals that one of the first freight shipments from this city via TCA was a consignment of printing press parts for a Victoria, British Columbia, firm. For an idea on the vast potentialities in United States-Canadian air cargo traf-

fic. read the Breakiron-Hoecker article in this issue.

The Office of International Trade, United States Department of Commerce, is cautioning all United States firms desiring to ship products to European countries for display at international trade fairs and exhibits to obtain export licenses for such shipments. Unnecessary complications may be avoided if exhibitors and exporters are fully aware in advance that an export license is of absolute necessity, it warned.

License-free shipments may be made only if the value is less than the General License Value (GLV) limitation established by OIT regulations. Under the GLV license, shipments of commodities not on the Positive List, valued at less than \$100, may be made to Group R. Countries without applying for a license. Specific dollar value limitations are placed on GLV shipments of items on the Positive List of commodities in short supply.

Export license application blanks (Form IT-419) for shipments to European countries may be obtained from all Department of Commerce Field Offices. The completed Form IT-419 should be sent in to the Chief of the Special Services Branch, Office of International Trade, Department of Commerce, Washington, D. C., for con-

A minimum air cargo rate of 16 cents a ton-mile for shipments up to one ton of all commodities, 14% cents a tonmile for freight between 2,000 and 16. 000 pounds, and 13 cents for cargos above 16,000 pounds, has been urged by William Burt, CAB counsel. These rates should be established over both certificated and air freight lines, he said

Burt's recommendations countered the commodity tariffs of 12 to 14 cents

At press time it was reported from Washington that the Civil Aeronautics Board had set the minimum rate for am one shipment for the first 1,000 miles at 16 cents a ton-mile, and 13 cents a ton-mile for any one shipment over 1,000 miles Modification of the minimum rates, how ever, will be permitted upon application of any individual airline.

The rates under investigation by the CAB were said to imperil the development of the air freight industry and were in conflict with the policy of Congress against destructive competitive practices. Experiments in testing the ability of the all-air freight carriers (such as Slick, California Eastern, and Flying Tigers) "to make a contribution to the national economy and na-tional defense" would be undermined by the "continuance of such unsound practices," the Board said.

According to the CAB, many carriers are now conducting their air freight operations at a heavy loss—this because the current rates are insufficient to guarantee a "safe, adequate, and efficient service." Apparently, volume rates will be up to the individual airlines.

per ton-mile for air cargoes between 2,000 and 16,000 pounds, with no ratebreaks between weights. These rates were suspended by the CAB last year, and the current rate investigation is a direct result of that suspension order.

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The CAB counsel explained that his tariff schedule is based on DC-4 performance, with a 66 percent load factor. He said that American Airlines' expense for this type of equipment was 19 cents a ton-mile, 61 percent load factor. This included the cost of plane operation only. Daniel Gribbon, AA's counsel, insisted that the airline's cost is about eight cents per available ton-mile. Burt argued that combination figures (freight - express - passenger) should not be used in establishing rates, but Gribbon maintained that the alr-lines should concentrate on developing combination-type service, through new loading techniques.

John W. G. Ogilvie, cargo sales manager, revealed at a recent press conference that March turned up as its biggest shipping month in history more than 15 percent over February's total, and better than 50 percent over that of March, 1947. He put in a plug for the foreign freight forwarders with whom Pan Am is working closely. Previously, Ogilvie, taking on the role of a seer, had predicted the equalization of the line's cargo and passenger business in a decade. As a result of the heartening showing during March, Ogilvie has gone a step further and revised his time-estimate to eight vears.

Here's an interesting statement concerning the congestion of cargo in the Interior Customs of Bogota, Colombia, by Director General of Customs Jorge



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James M. Landis, former chairman of the Civil Aeronautical Board, who has been elected a director of Colonial Airlines. An internationally recognized Government official and attorney, Landis was perhaps as well known as dean of the Harvard Law School. He is also a director of the Postal Telegraph Company and chairman of the board of directors of the Middle East Company.

Gutierrez, which originally appeared in El Tiempo, Bogota daily:

"The cargo congestion has its origin, in first place, due to the unprecedented growth in the number of importations by air express. The problem has been aggravated due to the lack of adequate warehousing sufficiently capable to re-ceive the enormous volume of cargo which is arriving and at the same time house the great number of employees that are required to give it course and

"The paper work to which a news-. . refers is imposed by the legal dispositions that cover the nationalization of merchandise arriving in this country and therefore neither the General Management of Customs nor the Customs Administrator at Bogota can order curtailment with respect to the presentation of documents required by law. It is to be observed that all this is termed "paper work" and it corresponds to four mandatory operations of Customs, i.e.: receipt of cargo, appraisal, liquidation of duties, and delivery of merchandise after nationalization. Each one of these operations must be affected with corresponding legal affidavits, which, we repeat, the suppression is not possible of a single one. To the foregoing there is added the processes to which the paper work is subject on the part of functionaries of the General Control Offices of the Republic, dictated as well by law, and concerning which we cannot do with-

"The same cargo congestion has imposed extraordinary labor hours under a rigorous control affected by the Chief of each respective section and the Customs Administrator. In order to give a good idea of the movement throughout Customs, the following data is offered: During the past year the Customs received, nationalized and delivered 278,000 air express shipments and Parcel Post consignments which required the handling of more than 65,000 manifests, the fisc received, in duties, amounts surpassing \$3,000,000.

"In addition to the foregoing, it is to be observed that the cargo conges-tion problem has been influenced by the lack of interest demonstrated on the part of certain sectors of commerce and certain importers who have retained in Customs warehouses more than 14,000 air express shipments which in spite of being ready for delivery have not been retrieved.

"The Government's preoccupation to find a solution on these problems has been permanent. During the last month of December steps were taken resulting in the following figures relative to that month: There were handled 8,500 manifests, delivered 30,000 packages and duties were collected in the amount of \$529,376."

These being the days of political re-versals, it should be no surprise that the Post Office Department has withdrawn its support for the creation of a domestic air parcel post system. Post-master General Donaldson has denied that any sort of pressure has been put on him; but he is on the record as advocating higher rates than those rec-ommended in the Rees Bill and limiting this type of service to scheduled carriers only, "if it is the sense of Congress that the inauguration of domestic air parcel post service is in the public interest."

Representative Edward Rees, of Kansas, author of the bill bearing his name, has proposed low air parcel post rates and would not bar irregular and air freight carriers from performing this service. Representative Thomas O'Brien, of Illinois, also has proposed an air parcel post bill, which would be restricted to scheduled airlines. The O'Brien-proposed rates lie between those recommended by Rees and Donaldson, but they are nearer the lat-. . . . .

Through airwaybills being the logical thing, Peruvian International Airways has entered into a pact with TACA and KLM for the movement of cargoes from New York and Washington to Central America and the Caribbean area. The line connects at Panama with TACA, and at Havana with KLM. PIA is also handling express on a through airwaybill to Buenos Aires. Connections are made at Santiago, Chile, with the Chilean line, LAN, or the Argentine line, FAMA.

Sabena's New York-to-Brussels all-air cargo runs were inaugurated this month, on a twice-a-week basis. Departures from New York are on Tuesdays and Fridays. DC-4s do the trick. Payload is 13,500 pounds.

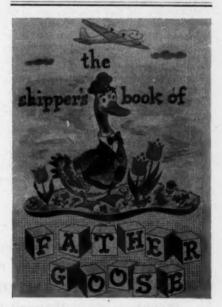
According to Walter Sternberg, general sales and traffic manager for American Airlines, Chicago is destined to become the line's domestic and international air cargo headquart-ers. He predicted that the Windy City will become the transportation center of the world by virtue of the fact that the country's rail and air freight would be concentrated there. Stern-berg said that New York generates three times as much air cargo as Chicago, but that it accounts for approximately one-third less than Chicago on inbound movements.

Paris reports that an air cargo exchange, not unlike the London Baltic Exchange, will be established soon in exchange, will be established soon in that city. Each day brokers will deal with chartering requests from both foreign and French companies. It is anticipated that this market will help to force down the rates currently quoted by French airlines.

In cooperation with the Customs Brokers and Forwarders Association of America, the Aviation Section of the New York Board of Trade has scheduled an Air Shippers' Forum for April 28, at the Hotel Pennsylvania, New York. In view of the record of the Section's previous forums, this one should make headlines.

Statistics Corner: REA reports that international air express shipments handled up to March 20 increased 221 percent over February, with the increase in weight 230 percent. Chief gains were in traffic over TACA and PIA routes. . . . Philippine Air Lines suffered a 7.7 percent cut in cargo volume during February. . . . United Air Lines, during February, carried 1,044,-145 ton-miles of freight as compared with 575,528 ton-miles in February, 1947. Air express rose 16 percent, while mail ton-miles dropped 12.4 percent. . . . Sabena carried 2,347,819 ton-miles of cargo during 1947 as compared with 642,214 the year before. This represents an increase of 209 percent. During the nine-month period, April 1-December 31, 1947, BOAC transported 1,135,472 pounds of cargo across the Atlantic. . . . . .

Air Cargo Tidbits: Among recent (Continued on Page 57)



A honey of an advertising piece is Railway Express Agency's 16-page The Shipper's Book of Father Goose. The Shipper's Book of Pather Goose. The subtitle gives an adequate hint: "A Collection of Rhymes with Good Reasons for Shipping by Air." Want a free copy? Write: Special Service Department, Air Transportation, 10 Bridge Street, New York 4, N. Y.

## AIR FREIGHT LINES

CALIFORNIA EASTERN AIRWAYS: A new tariff has been filed with the Civil Aeronautics Board, calling for a 10 percent rate increase over its transcontinental routes. With April 21 as the effective date, the tariff would yield from 14½ to 15 cents a ton-mile (as compared with the current one of about 13 cents a ton-mile). Andre de Saint-Phalle, president, declared that "rising costs dictate the move at this time," and pointed out that "it would be inviting economic suicide to do otherwise." He went on to say that the rate war resulted in Cal Eastern's old tariff, which "is not based on competent experience as is the rate struc-

"It is our considered opinion," de Saint-Phalle stated, "that the shippers want, above all, an economically sound, stable air freight operation. A sound rate structure is the first fundamental in this operation. Such a structure is based on two foundations cated costs and a reasonable profit for

services rendered."

Cal Eastern recently set a speed record for commercial cargoplanes when a DC-4 covered the 884-mile Los-Angeles-Denver distance in three hours and 19 minutes. Six tons of cargo were aboard the ship. . . . California's emergency daylight saving time has been adopted by the line in all operations at its Western terminals (Oakland and Burbank). Caskey, formerly assistant to the vice president-sales, last month received appointment as general sales manager for the line. He previously served as cargo manager for United Air Lines at Chicago and Los Angeles. . James B. Watriss, former NATS pilot and one of the founders of Cal Eastern, has been named assistant sales manager.

Flying Tiger Line: George Dart has taken over Edward Jenkins' position as district sales manager in charge of the New York territory. Dart is well-known in transportation circles, and has been associated with Keeshin Truck Lines, Freed Eisman Company, Gulf Carloading Company, and Republic Carloading Company.

Seaboard and Western Airlines: Late last month S&W pestitioned the CAB for relief from regulations which, if complied with, the airline said, would result in its putting itself out of business - for being too successful. S&W has asked to be exempted from Section 292.1, Economic Regulations, and be permitted to conduct air freight poerations "on a demand basis between United States, Europe, and the Middle East."

The line showed that during 10 months of operation (May, 1947-February, 1948) its monthly traffic had skyrocketed from 45,518 ton-miles to 421,-739 ton-miles. During February, S&W cargoplanes carried 97 percent capacity loads on eastbound flights.

It was pointed out that the peculiar situation exists because the regulation states that an irregular carrier of air freight may not fly with "regularity and frequency" between any points. Further, the CAB and Federal courts, in defining the ruling, have decreed that such carriers may not fly "a single flight per week on the same day of each week between the same two points, or . . . between any same two points each week in succeeding weeks, without there intervening . . without there intervening . . . appreciable definite breaks in service." The petition continues:

"The irregular air carrier is thus confronted by a situation where, in order to conform, it must repeatedly spread out to new geographical points irrespective of the demands for continued service to points already served. In a word, if it succeeds with the trade to a point where some degree of regularity is obviously called for, it may violate the regulation and thus effectively succeed itself out of business.

Following is S&W's complete 10month record:

Alreraft Days Ton-Miles May, 1947 ..... 31 45,518 157,790 August 128,883 September ..... 133,021 October ..... 185,645 December 176,864 January, 1948 ..... 124 184,479 February

During its 10 months of air freight operations, S&W reported, men's and women's wearing apparel and textiles accounted for over 47 percent of the bulk transatlantic shipments. Low and medium-priced coats and suits led the



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Delos Wilson Rentzel, president of Aeronautical Radio, Inc., an airline-owned electronics corporation, and vice chairman of the Government-industry Radio Technical Commission for Aeronautics, who has been nominated by President Truman as Civil Apronautics Administrator to succeed Theodore Paul Wright. An expert in navigation and communitions problems. Rontzel is a former employee of American Airlines and its predecessor companies. At this writing, Senate confirmation had not been reported.

list of items, with low-priced dresses men's underwear, and shirts following. . Among S&W's recent cargoes were \$20,000 worth of cobra skins, said to be the largest and most valuable ever shipped by air. Flown from Bangkok, Siam, and Madras, India, the skins were consigned to Henry Klapisch, president of the Cortez Trading Corporation, New York. Most of the skins will go to I. Miller and Sons, Inc., manufacturers of women's footwear.

Skyways International Trading and Transport Company: William J. Kealey, formerly of Slick Airways, has been named sales representative in the New . Cornelius J. Deneen has been transferred from Miami to

(Concluded on Page 55)

### Jo Our Readers

This issue is late on account of the continuing printers' dispute in Philadelphia where this magazine is normally published.

Although AIR TRANSPORTATION is not a party to the dispute, it has been seriously inconvenienced through a necessary revision of editorial schedule which will be restored shortly after the strike is concluded.

We apologize to our thousands of subscribers for the tardiness of this issue, and thank them for the patience they have displayed during the current emergency.

### U.S.-CANADA AIR CARGO POTENTIALS

(Continued from Page 19)

tempting to integrate this movement with any pattern of operations established for the carriage of fruits and vegetables from Florida and other winter-garden areas to points in the St. Lawrence Air Freight Area.

Candidates for air freight from the St. Lawrence Air Freight Area that may be handled in southbound operations will probably consist mostly of industrial commodities destined for New York City and other large industrial cities in the northeastern part of the United States and for export to Latin American countries through some of the southern ports of the United States. The planes handling the first type of traffic, after delivering the industrial goods destined for New York, would be reloaded with goods from New York consigned either to the southern perishable production areas or for export to Latin America.

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Industry in the St. Lawrence Air Freight Area is highly diversified and is rather similar to and closely integrated with that of the adjacent industrialized section of the United States. Many firms of the United States have set up branches in this area in order to take advantage of the preferential rates of duty which various parts of the British Commonwealth give to each other. This may perhaps be a particularly favorable factor in the development of exports via the United States of certain types of airborne industrial commodities from this area to such parts of the British Empire as the Bahama Islands, Jamaica, Trinidad, and British Honduras. The close integration of the two economies also leads to a need for a considerable traffic between the two areas in the interchange of machine parts, tools and dies, stocks held in inventory, and so forth.

Agriculture in the St. Lawrence Air Freight Area is diversified. Although some perishable agricultural commodities are produced, most of them compete directly with plentiful supplies in the United States and therefore are not exported to the United States. But there is the possibility that a considerable part of this area's surplus production of fluid cream could be profitably shipped by air freight to such large United States cities as New York and Philadelphia. This should be particularly feasible in instances where southbound loads of other commodities might not be available. In order to attract the fluid cream traffic, a special rate may have to be used.

One segment of Canadian agriculture which has become increasingly important in the last two decades and which may offer a fairly sizable air-cargo potential from this area at certain seasons of the year is the fur-farming industry. In 1942 the Dominion as a whole had a total of 7835 fur farms which produced and marketed \$6,739,-103 worth of pelts. This production was supplemented by an annual take of 20 million dollars worth of furs from trapped fur-bearing animals. More than 70 per cent of the fur farms are located in eastern Canada, most of the output of which is marketed through Montreal, now recognized as one of the leading international fur markets. As a very substantial portion of the furs is exported to the United States, they may be air candidates at favorable rates.

### **Maritime Area**

The Maritime Air Freight Area includes the Canadian Provinces of New Brunswick, Nova Scotia, Prince Edward Island, and the extreme eastern portion of the Province of Quebec, in addition to the two small French Islands of St. Pierre and Miquelon, and the British Island of Newfoundland and its politi-

cal dependency, the coast of Labrador, which are, politically, not a part of the Dominion of Canada.

Agriculture in this region is restricted by both climate and soi's. For the most part the climate is not favorable to the growth of farm products of high quality and in some parts agriculture is practically nonexistant. Although some excellent crops of high-quality potatoes are produced on Prince Edward Island. New Brunswick, and Nova Scotia, and apples are produced in commercial quantities in favorably situated areas of Nova Scotia and New Brunswick, agriculture in this region is, on the whole, not quite so productive and prosperous as that of a number of other parts of the Dominion.

As compared with the rest of Canada, manufacturing plays a minor role in the economy of the Maritime Area. In 1870 the Maritime Area produced 13.5 per cent of the gross value of all Canadian manufactured goods, but by 1935 this proportion had declined to 4.5 per cent.

The air freight potential of imports into the Maritime Air Freight Area from the United States, like imports into the St. Lawrence Air Freight Area, will probably consist primarily of highly perishable agricultural products. This potential, however, is considerably smaller than the potential of imports of these commodities into the St. Lawrence Air Freight Area because of the smaller population and because of the generally lower per capita purchasing power in this region. Halifax, Nova Scotia, and St. Johns, New Brunswick, are the only major cities. Carlot unloads in 1946 of selected fruits and vegetables at Halifax from the United States and Latin American countries are as follows:

Grapes								.40	carloads
Celery			0		0			12	carloads
Lettuce	0							.44	carloads
Pineapples								. 3	carloads
Tomatoes							0	.52	carloads

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Plums		9	9		0			14	carloads
Cantaloups								.1	carload
Cherries .		9						1	carload
Peaches			9					7	carloads
Cauliflower								1	carload

In addition to carlot unloads, substantial quantities of fruits and vegetables originating in the United States and Latin American countries are shipped in mixed carlots and less-thancarlot quantities from Boston to these Maritime wholesale centers. Movement of perishables to Halifax is facilitated by overnight Boston-Yarmouth boat service.

The seasonal distribution and source of supply of the unloads is rather similar to that of unloads for cities in the St. Lawrence Air Freight Area. The relatively small volume of fruits and vegetables shipped to the smaller cities in this area (such as Moncton and Frederickton, New Brunswick, and St. Johns, Newfoundland) offers relatively little air freight potential.

### **Small Urban Areas**

Although the Maritime Air Freight Area is more remote from the industrial northeast section of the United States than is the St. Lawrence Air Freight Area, it is doubtful whether any substantial volume of traffic in airborne industrial products from the United States to this area can be developed. The absence of any large urban areas, the lack of a prosperous, well-balanced economy, and the generally lower per capita purchasing power do not forecast the shipment of any substantial quantity of this class of commodities to this region. Here, as in the case of the St. Lawrence Air Freight Area, it will probably be difficult to use any such shipments of industrial commodities to supplement the traffic in air-borne perishables from the United States or any Latin American points of this area.

The Maritime Area, as its name indicates, derives a substantial part of its economic livelihood from the sea, being adjacent to one of the most prolific and



A United Air Lines cargo attendant records data as Melvin Brockman, cargo specialist for the airline, measures a package with the "cube stick" which he invented. A logarithm scale is reproduced on the stick, enabling cargo handlers to determine quickly cubic dimensions of air shipments. Tested and approved at United's Chicago terminal, it soon will be used throughout the system. Company officials say the stick will save tens of thousands of dollars of formerly lost revenue. It is pointed out that previously there had been no quick method of determining cubic dimensions, and that "for expediency's sake, freight handlers in the past have erred on the side of the shipper". Brockman also is the inventor of a slide rule for checking freight rates and charges in other phases of shipping, and designed United's original airwaybill. The latter was the forerunner of the uniform airwaybill presently used by the certificated airlines.

extensive fishing grounds in the world. The commercial catch of the four Canadian Provinces of New Brunswick, Nova Scotia, Prince Edward Island, and Quebec totaled more than 41 million dollars in 1943, which was about one-half of the total Canadian catch. This does not, however, include the commercial catch of Newfoundland and the two

French Islands of St. Pierre and Miquelon. In 1943 Canada exported more than 26 million dollars worth of fresh fish to the United States, about half of which probably came from the Maritime Area.

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About 26 varieties of fish and other sea foods are caught off the coast of the Maritime Area in commercial quantities each year, a considerable volume of which is marketed fresh. Lobstem are one of the leading varieties of sea foods shipped to the United States in a fresh state, and in 1943 more than 12 million pounds valued at more than \$4,300,000 were exported to the United States from the Canadian provinces in the Maritime Area. Other varieties of fish and sea foods, including clams, oysters, and salmon, are also shipped to the United States in fresh state.

### Marketing Fish

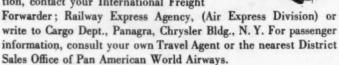
The basic problem of marketing fish is to get them to market in prime condition. Fresh fish shipped to the United States and to other parts of Canada are packed in ice and transported by fast express. The ice does not prevent deterioration but merely retards the process of decay which begins almost as soon as the fish leave the water. Air transportation provides an effective means of moving the fish to market quickly, thus helping to preserve more of their original fresh quality for consumers. Some sea food, especially lobsters, is already being shipped by air to the United States. There is reason to believe that the volume of airborne sea food shipped to the United States from this area will increase in the future, particularly if the trend in consumer preference away from processed fish toward fresh fish continues. In any event, the air freight potential in fish and other sea foods that may be handled in southbound operations from this area to the United States will probably be enough to enable the carriers that haul agricultural perishables from the United States into

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this region to maintain relatively high load factors on southbound flights.

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The air freight potential available in the Maritime Area's fishing industry for export to the United States is supplemented for several weeks each summer by shipments of several million pounds of blueberries to cities in northeastern United States. In 1946 a total of 14,058,813 pounds of fresh blueberries was exported from Canada to the United States. The bulk of these berries is produced in eastern Canada, particularly in the eastern part of the Province of Quebec and the Province of New Brunswick, In addition, Newfoundland produces and exports to the United States a considerable quantity of these berries during the relatively short growing season each summer. Blueberries are rather perishable and fragile, and possess a relatively high value per pound, so they should easily qualify for air shipment on those scores. It is probable that the air freight potential of blueberries available in this area for shipment to the United States each summer would average somewhere between five and 10 million pounds, depending, of course, upon the volume of local production and upon the demand for this fruit in the United States.

A considerable quantity of raw furs is also produced in the Maritime Area each year. The furs come from local fur farms and from trapped fur-bearing animals. Prince Edward Island has a highly concentrated and well-developed fox-farming industry that produces some of the highest quality of fox furs in Canada. Although, as previously noted, most of eastern Canada's production of raw furs is marketed through Montreal, when part of the production is transshipped to the United States in raw, processed, or manufactured form, part of the Maritime Area's production of furs is shipped directly to United States markets. Most of the raw furs that probably could be shipped directly from the Maritime Area to the United States by air would probably be offered for shipment during the Winter or early Spring. This commodity could therefore be used to fill partially the gap in the total southbound potential that would probably occur at that time of the year because of the contraction of fishing operations in this area during the Winter.

### FREIGHT FORWARDERS

(Continued from Page 38)

Freight Division, the two floors offer 7,000 square feet of storage and office space. There is a private loading yard, with facilities to load a half-dozen semi-trailers at the same time.

Bluefries-New York, Inc.: Heidl's International Shipping Service, Inc., and The American Bluefriesveem, Inc. have

been merged under the name of Bluefries-New York, Inc. Knockers Fabius heads the concern whose headquarters are at 44 Whitehall Street, New York.

are at 44 Whitehall Street, New York.
Gendrand Brothers, Inc.: Newest addition to the Air Freight Department is Edward J. Raphael, who now heads Gondrand's new Pan American Clipper Express Department. Jack Baker, manager of the Air Freight Department, reported that the heavy volume of Clipper cargo since March 1 necessitated the setting up of the division.

tated the setting up of the division. Freedman and Slater, Inc.: H. V. Gernsheim, manager of the Air Freight Department, has announced the opening of another air division at Freedman and Slater's Albany office, 50 State Street. Edward McAleer heads that department.

Globe Shipping Co., Inc.: A. Burin, president, has announced the enlargement of Globe's Air Express Department, with Phil Falek as manager. Formerly employed by CARE, Inc. and the William Muller Corporation, Falek will be assisted by Angelo Licata.

### Calif.-Guatemala Nonstop

Pan American World Airways has filed an application for a route extension to connect San Francisco and Los Angeles with Guatemala by a nonstop service. The new service would by-pass Mexico.

This route extension would provide one-carrier United States Flag service between California and all the principal cities of Central and South America, a service not now available. The new direct route would connect at Balboa with Panagra.



### A FISH STORY

(Continued from Page 14)

As the trawler fleet grows it is expected that buildings will be erected in Port Davey to meet its needs. The Tasmanian Government is keenly interested in these latest steps to develop the southwest region and is extending all possible help to the enterprise.

Leader of the Catalina enterprise, Captain John Fraser, 39 year old veteran Australian pilot, conceived his aerial plan for tapping the wealth of the Southwest Coast 15 years ago. But at that time no suitable type of aircraft had been designed. The development of the Catalina with its long range, high payload (seven tons), and low fuel consumption provided a flying boat which was ideal for Captain Fraser's purposes.

Outbreak of World War II, however, caused him to suspend his plans and he joined the RAF ferry command with the rank of Wing Commander. One of his assignments was to ferry to Australia the first Catalina obtained by the Australian Air Force from the United States. Because of his outstanding ability as a flying boat pilot he was seconded from the RAF early in 1944



Captain John Fraser, head of the Catalina enterprise, discussing his plans with Robert Cosgrove, Premier of Tasmania.

to conduct an aerial survey by Catalina of the Amazon River for the United States Government. During the last days of the Pacific war he suffered severe wounds that ended his flying career.

Demobilization and the sale of surplus Catalinas in Australia gave him the opportunity for which he had waited 15 years. Making an initial purchase early in 1947 of three flying boats—among them the same plane he had ferried to Australia early in the war—he selected from hundreds of applicants a maintenance staff and air crew of 14 former RAAF Catalina men.

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PAGE 54—AIR TRANSPORTATION—Air Commerce

By June, the first of the Catalinas was in the air and had made a preliminary survey flight of the southwest region, seeking suitable anchorages and emergency landing harbors. A month later, the two General Fisheries' trawlers left Sydney for Port Davey, but bad weather prevented them rounding the southwest cape until August.

### AIR FREIGHT LINES

(Continued from Page 50)

New York where he now is in charge of operations of this area.

Slick Airways: Designed to offset rising costs and the lack of balance in the traffic flow, Slick's new freight tariff, filed last month with the CAB and due to become effective late this month, is expected to bring a 14½-cent per ton-mile return—about 1½ cents per ton-mile above the previous tariff, filed last August 1. Single-charge, door-to-door delivery rates are provided.

The new tariff calls for a first-class New York - Los Angeles rate of \$16.80 per hundredweight for 10,000 pounds and over; 3,000 to 9,999 pounds, \$17.40; 1,000 to 2,999, \$18.10; 300 to 999, \$20.20; 100 to 299, \$23.60; 25 to 99, \$34.20 The latter three weight classifications include pickup-and-delivery service. Slick continues to accept shipments of less than 25 pounds.

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Examples of commodity rates are: aircraft parts (Los Angeles-New York), \$11.20 per hundredweight on 1,000 to 2,999 pounds; shrimp (San Antonio-New York) \$8.40 per hundredweight on 1,000 to 2,999 pounds; vegetables (Dallas-Philadelphia), \$5.80 per hundredweight on 10,000 pounds and over.

A Supply and Service Division for

A Supply and Service Division for the modification and licensing of Commando airfreighters, the overhauling of Pratt and Whitney engines, and the building of elevators, stabilizers and other C-46 parts for sale, has been established by Slick. Larry H. Avila, formerly with Slick's sales and traffic department in Frisco, San Antonio, and Los Angeles, heads the new division as manager. Offices are at the line's Burbank terminal. In addition to modification work, the Supply and Service Division will strip planes for weight reductions, install latest-type radio equipment, rebuild cockpits, and insulate cargo compartments for tem-

perature regulation.

"You Gotta Stay Happy," is the title of the Jimmy Stewart-Eddie Albert movie dealing with air freight, much of which is being filmed at Slick's Newark hangar.

Personnel Notes: J. Prescott Blount, Slick's consultant on airborne perishables, has been elected chairman of the new Air Cargo Project Committee of the California Aeronautics Commis-

sion.

### New CAL Stop

The certificate of public convenience and necessity of Continental Air Lines over Route 29, has been amended by the Civil Aernoutics Board to include Lawton-Fort Sill, Oklahoma, during a three year period, as an intermediate point on CAL's route between Wichita Falls and Oklahoma City.

### Santa Fe to be TWA Stop

The Civil Aeronautics Board has authorized TWA to establish transcontinental service to Santa Fe, New Mexico. The new route will link Santa Fe to Amarillo, Texas, and Winslow, Arizona, providing direct through service to East and West Coast cities on the airline's transcontinental routes. Santa Fe, an intermediate stop on TWA's Route 2, will serve as an alternate station to Alberqueque, and there will be no TWA service between the two cities.



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Harold M. Stephens, Chief Justice of the United States Circuit Court of Appeals (left), swearing in Joseph J. O'Connell, Jr., new chairman of the Civil Aeronautics Board, who succeeds James M. Landis. His appointment is for a six-year term which expires December 31, 1953. A native of Saranac Lake, New York, he is an attorney by profession. He joined the Treasury Department 10 years ago, serving successively as special assistant to the general counsel, assistant general counsel, and general counsel. He resigned the latter position last year to join a Washington law firm.

### EXECUTIVE

DONALD A. DUFF, formerly an executive with Capital Airlines, Northeast Airlines, and Continental Air Lines, elected chairman of the board of directors of Challenger Airlines.

ANSON C. McKIM, O.B.E., appointed vice president-traffic of Trans-Canada Air Lines. Prior to joining TCA last July, he served as Canadian

representative on the Council of ICAO.

EDWARD S. HUDSON, named vice president of Alaska Airlines. A graduate of the University of Washington, he was with the Boeing Aircraft Com-

pany for 10 years.

WILLIAM D. KENNEDY, elected vice president of the Curtiss-Wright Corporation. He served as vice president and general manager of the Wright Aeronautical Corporation since 1945.

K. D. McKENZIE, director of sales, appointed by Northwest Airlines to the newly created position of European di-He will direct activities of rector. NWA in the British Isles, Europe, and Scandinavia.

NELSON DAVID, American Overseas Airlines' European manager of operations, named to the new post of co-ordinator. A former fighter pilot and personal pilot to Generalissimo Chiang Kai-shek, he came to AOA two years ago.

ROBERT DUCAS, elected president and director of Air Commuting, Inc., replacing Edward C. Rowe, who has resigned.

DANIEL A. EVATT, elected treasurer of the Glenn L. Martin Company. He is well known in New York and

Washington financial circles.

HAROLD CROW, elected to the board of directors of Pacific Airmotive Corporation. He has also been tive Corporation. He made a vice president.

THEODORE VOORHEES, appointed assistant general manager of Bendix International, export division of the Bendix Aviation Corporation.

### SALES TRAFFIC

ROBERT W. BUTLER and NOR-MAN E. MONTGOMERY, named manager of ground services and procedures and manager of rates and tariffs, respectfully, for Slick Airways.

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JUAN HOMS and STUART WOOS-TER, appointed by Pan American World Airways to the respective posts of sales manager—Argentina and sales manager—Baltimore. Homs joined Pan Am 10 years ago, and Wooster three years ago. PHILIP SEIFERT, district traffic manager at San Juan, has been transferred to the same post at Port

of Spain, Trinidad.

JOHN L. BURLINGTON, formerly district traffic manager at Cincinnati for TWA, elevated to the position of

assistant manager-passenger sales.

CLYDE DORAN and G. L. LEIENDECKER, now serving United Air Lines as district traffic and sales manager in the respective cities of Washington and Vancouver. W. D. FER-GUSON has been named superintendent of merchandising.

CHARLES GRAY and CARROLL F. LITTLE, JR., appointed by Braniff International Airways to district traffic managership at Oklahoma City and Wichita. Gray joined the line in 1945, and Little in 1937.

GEORGE A. STEVENS, named district traffic manager for Mid-Continent Airlines at Tulsa. He is a former NATS officer.



A. C. McKim

Edward S. Hudson William D. Kennedy K. D. McKenzie

Nelson David

Leo Straus James M. Glod

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Leo Straus

JAMES M. GLOD, named supertendent of cargo service for American Airlines. A native of Luxerbourg, he joined American at Newark in 1936.

LEO STRAUSS, who has taken over the managership of the newly organized Air Cargo Department of the Trans-Global Shipping Company, 186 William Street, New York. An ATC veteran, he supervised all air cargo shipments for Alltransport, Inc. before coming to Trans-Global.

### **★** MISCELLANEOUS ★

KENNETH E. NEWLAND, appointed director of Air-Age Education Research, succeeding Nickolaus L. Engelhardt, Jr., who has resigned to enter private business.

ROBERT J. SMITH, president of Pioneer Aid Lines, promoted to the rank of brigadier general in the Air Force Reserve.

WILLIAM H. KLENKE, JR., general sales manager, Stinson Division, Consolidated Vultee Aircraft Corporation, named a member of the Non-Scheduled Flying Advisory Committee. CAA.

R. M. PHELPS, elected manager of the National Aeronautic Association.

### BRITISH AIRFREIGHTERS

(Continued from Page 20)

similarly modified, would carry slightly more; the twin-engined, amphibious Sealand takes 1,600 pounds as a freighter.

Light twin-engined landplane types are the Airspeed Consul Convertible with large doors, a payload of about 1,500 pounds, and a solid reputation; the Percival Prince (one ton); Portsmouth Aerocar (1,400 pounds); and the Avro Nineteen (1,500 pounds).

Finally, the de Havilland company, though not supplying the *Dove* as a freighter, point out that their Australian company is actively concerned in a project of this nature. The DH-A3 *Drover* prototype is approaching completion in the land down under. Lowwing, all-metal, three-engined, the design owes much to the *Dove*.

Even without calling upon the Com-

monwealth product, Great Britain can produce some 15 types of cargo transport aircraft.

### AIR COMMERCE

(Continued from Page 49)

cargoes flown by Pan Am are six Missouri mules (Miami-Havana), and 10 tons of juke boxes (Miami-Barran-quilla) . . . Peruvian International's largest single consignment comprised 54 boxes (8,777 pounds) of Diesel and steam engine parts. It was flown from Milwaukee to New York by Northwest, and picked up by PIA for delivery in Lima. Another interesting, if not large, cargo consisted of 19 pounds of political buttons consigned to Hector Valdes, of Panama, who happens to be running for mayor. . . . United reports that in a recent four-month period, nearly 700,000 pounds of radio parts have been shipped in and out of Philadelphia for Philco Corporation. Shipments ranged from 10 pounds to 6,300 pounds Pioneer Production

Despite the accident which destroyed the experimental model of its three-engined Pioneer passenger-cargo transport, Northrop Aircraft is still planning production. The accident was caused by a structural failure which occurred during one of the final tests, when test rudder loads, heavier than those normally occurring in flight were applied. The Pioneer is designed to carry a useful load capacity greater than 10,000 pounds, and can land and take off in approximately 500 feet.

Pan Am Wins Prize

An exhibit of representative products from 12 different Latin American nations which stressed the commercial rather than tourist possibilities in intercontinental trade gave the grand prize in the Florida State Fair to Pan American World Airways. The exhibit, showing agricultural, mineral, manufactured and handicraft products, will be on exhibition again in Miami during Foreign Trade Week.



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### POI, PALMS, PLANES

(Continued from Page 13)

during the war with the TCC.

Yes, it probably was another of those shoestring deals that the Mainland had come to know to the tune of eight or ten a week at the end of the war. But in Hawaii the boys had a fertile and uncultivated field with practically no competition. There was a definite need for an air cargo service. They lacked experience, but that was overshadowed by their eager determination to make the thing go.

Today a large portion of the fresh foods used by Honolulu housewives reaches them via this aerial market basket. Outgoing cargoes from Honolulu are mostly from wholesale distributors to their branches or retailers. Honolulu newspapers are shipped to the other islands in considerable quantity. While most of the fresh fish is flown from the north end of the "Big Island," TAH often flies out under a charter arrangement to a fish company base on tiny Tern Island, 500 miles north-northwest of Oahu in French Frigate Shoals. The fish caught there are kept frozen solid until the plane arrives. Then they are loaded in canvas-lined compartments or on wooden trays on the floor of the plane. After the threehour return flight to Honolulu at 7,000 feet, the fish are only slightly thawed and in good shape for sale.

Unique cargoes aren't unusual. If you want to get a rise out of Fred Ward, the line's local agent on Maui, ask him about the afternoon he received a crate of pigeons. Orders were to release on arrival, for a race back to Honolulu. It was a nice, warm afternoon. Everybody was lazing around, taking things easy. That particular afternoon the pigeons probably decided they'd like to remain on Maui, too. It turned out to be that rare instance when homing pigeons refused to go home.

The boys developed a device for keeping cans of milk cool enough in flight to satisfy the Board of Health regulations. A few of them sat down to talk it over and came up with a clever homemade device, Cakes of dry ice were mounted in a large screened box ahead of the rows of milk cans. A special airscoop was conducted to the front of the box, and the iced air did the necessary

job during the flight of cow juice?

The boys aren't quite out of the woods. Although they received their letter of exemption last November, by which the Civil Aeronautics Board permits them to operate either scheduled or non-scheduled cargo flights, it holds only until the verdict of a final hearing.

They have ambitious plans and they mean to make TAH really click. Experience has given them greater efficiency—and what is important is that they are aiming for that day when skyfreight rates will be even lower, which would mean a big change in the inter-island economy.

### 5 More Years for DC-3

The Douglas DC-3, veteran truckhorse of the world's airways, will be flying for another five years, under a recently issued regulation of the Civil Aeronautics Board. In use since 1934, the famous transport still is in wide use everywhere. The C-47 was a miltary version of the DC-3, and is popular as an airfreighter.

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# At the Tips of Our Fingers...

AY AFTER DAY, hour after hour, AIR TRANSPORTATION'S Reader Service Department is busy answering 'phone, mail, and wire communications from shippers in every part of the United States, as well as from such far-off places as Calcutta, Shanghai, Manila, Johannesburg, Brussels, Rome, Copenhagen, Paris, London, Rio, and scores of other places dotting the world map. It is our business to know the answers—answers to such questions as these. . . .

"I want to charter a DC-4 to fly a load of engines to Guatemala City. Where can I get one?"

"I am interested in appointing a New York agent for our London firm. Can you recommend several reputable IATA-approved foreign freight forwarders?"

"What scheduled transatlantic air carriers serve Switzerland?"

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"Are any of the irregular air carriers transporting cargoes destined to the Balkan countries?"

"What type of airfreighter does X Airlines operate, and does that company have experience in shipping cattle over long distances?"

"Is it true that Z Airlines has

been grounded? I am anxious to know. They have my shipment."

"I recently read an article in your magazine on the packaging of perishables. Can you give me the address of the firm mentioned in that article?"

"I expect to fly a load of furs into New York from Alaska. Would you please recommend some shippers or forwarders who might assure me a return load?"

"What is the rate on a 150-pound air shipment

from Chicago to Oslo?"

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